THOMAS MASTERSON HIS ADDITION TO HIS FIRST BOOKE OF ARITHMETICK.

Shewing the true vnderſtanding of the ſame booke: with the examples therein, declared at large: Alſo how the ſolutions of the queſtions propounded in his ſecond booke of arithmeticke, may be calculated by the ſaid firſt booke many ſeuerall wayes.

All after ſo plaine and eaſie maner, that any which is deſirous to make the ſaid operations, may hereby vnderſtand and learne to worke them, without the helpe of any other teacher.

Nothing without labour: All things with reaſon.

LONDON
Printed by Richard Field, 1594.

To the Reader.

ALthough (gentle reader) in the yeare of our Lord 1592. I published for thy commoditie and profit, my first and second bookes of Arithmeticke: containing such arithmeticall definitions, declarations, instructions, questions and answers, as be sufficient for the studious to attaine, not onely to the true vnderstanding of my said bookes, but also of many other. Yet considering that some of you which are desirous to attaine vnto part of this art, for the better accomplishing of your daily affaires, haue not such spare time as is required to be had, to penetrate vnto the reason and cause of things, neither haue conuenient meanes to repaire vnto those that can direct you in the right vnderstanding of them. Therefore, as well for thy more helpe and benefit, as to satisfie my friends thy well willers, I haue made this addition vnto my said first booke, containing not onely a plaine exposition of the same from point to point, but also a large declaration how the questions propounded in my aforesaid second booke, may be answered by the said first booke many different wayes, comprehending therein in a manner, how all the notable briefe operations are wrought in my said first and second bookes: all after so plaine and easie method, that thou shalt need no other teacher to vnderstand the same. The knowledge whereof (by the opinion and common sentence of all well aduised men) will further thee much in the expedition of thy attempts, if thou couet in thy doings to speed well: as for example, If thou do but consider some of the workes and answers in my second booke, namely these of the 323. 324. 334. 355. 356. 357. 358. 387. 388. 389. 397. 421. 422. 428. 429. 437. 441. 463. 482. 487. 550. and such like questions: and then do examine, how marchants and others daily practise such things, thou canst not but note the losses which they sustaine for want of true knowledge to make their accompts or reckonings. Yet some of them according to their bookes and instructions in arithmeticke, thinke that they worke well: but there are many bookes of Arithmetick containing great errors, of which two are written of late yeares, namely one by Michell Cognet of Antwerpe, and after him another by Simon Stevin of Bruges: both teaching (in the appearance of the vnskilfull) with great shew of truth, other answers then mine of the aforesaid

queſtions of paiments and intereſts, and notwithſtanding in thoſe anſwers they are very falſe: and ſo their followers (being in great number) wander in thoſe points in danger, error, and ignorance, being vterly vnable to maintaine their opinions any way effectually, much leſſe (as they ought) mathematically, yet wonderfully haue their arguments generally taken place heretofore, and were likely ſo to haue continued, if I had not oppoſed my ſelfe againſt them, and diſcouered their errors. I do not write this, but that I haue firſt giuen the aforeſaid authors (being yet aliue) knowledge thereof by my letters, as alſo receiued their anſwers by their letters: then replied vnto their anſwers, and receiued their concluſions: Then prooued their reſolutions to be falſe, and (to the one of them, for the other did anſwer no more) prooued by demonſtration mathematicall, that my ſolution is onely true, differing from theirs more then is conuenient to be little regarded, and for that cauſe would here more at large haue made declaration and demonſtration thereof, but neither time nor oportunitie ſuffer me ſo to do. Therefore reſeruing the ſame (if God permit) for an other place, I thought good to let thee know thus much, that thou maieſt ſhunne ignorantly to be deceiued herein. And in the meane time, as I haue already by word of mouth reduced many of the chiefe followers of thoſe errors in the right way: ſo I will not refuſe to do the like to all thoſe that are deſirous to learne. Thus hoping to haue the faultes eſcaped friendly amended, God be with thee.

From London, anno 1594.

The contents of this addition.

The first declaration.

What commoditie we haue by one.

The second declaration.

What commoditie we haue by number.

The third declaration.

What numbers are of one kinde.

The fourth and fifth declaration.

Which numbers are the part or parts of an other number.

The sixt declaration.

Which quantities haue reason, and which haue no reason.

The seauenth declaration.

What termes are.

The eight declaration.

Which numbers are proportionals, and which improportionals.

The ninth declaration.

What knowledge the art of Arithmeticke doth presuppose.

The first instruction.

Of Numeration: with many examples declared at large.

The second instruction.

Of Addition: with many examples declared at large.

The third instruction.

Of Substraction: with many examples declared at large.

The fourth instruction.

Of multiplication: with many examples declared at large.

The fift instruction.

Of Deuision in two manners: with many examples declared at large.

The sixt instruction.

Of fractions and their numeration: with many examples declared at large.

The seauenth instruction.

Of Abreuiation in Fractions: with many examples declared at large.

The eight instruction.

Of reducing many fractions vnder one denomination: with many examples declared at large.

The ninth inſtruction.

Of addition in fractions: with many examples declared at large.

The tenth inſtruction.

Of ſubſtraction in fractions, with many examples declared at large.

The eleuenth inſtruction.

Of multiplication in fractions: with many examples declared at large.

The twelfth inſtruction.

Of deuiſion in fractions: with many examples declared at large.

The thirteenth inſtruction.

Of the varietie of reaſons: with many examples declared at large.

The fourteenth inſtruction.

Of the naming of reaſons: with many examples declared at large.

The fifteenth inſtruction.

To finde a fourth number proportionall, explained and declared at large by 137 *ſeuerall queſtions or examples, containing many excellent operations, &c.*

Here followeth the contents of *the firſt Booke.*

The firſt definition.

What one is.

The ſecond definition.

What number is.

The third definition.

What a part is.

The fourth definition.

What is parts.

The fift definition.

What is many times.

The ſixt definition.

What reaſon is.

The ſeauenth definition.

What proportion is.

The eight definition.

Which are proportionall quantities.

The ninth definition.
What Arithmetick is.
The first instruction.
Of Numeration.
The second instruction.
Of addition.
The third instruction.
Of Substraction.
The fourth instruction.
Of Multiplication.
The fift instruction.
Of Deuision.
The sixt instruction.
Of Fractions, and their Numeration.
The seauenth instruction.
Of abreuiation in fractions.
The eight instruction.
Of reducing many fractions vnder one denomination.
The ninth instruction.
Of Addition in fractions.
The tenth instruction.
Of Substraction in fractions.
The eleuenth instruction.
Of Multiplication in fractions.
The twelfth instruction.
Of deuision in fractions.
The thirteenth instruction.
Of the varietie of reasons.
The fourteenth instruction,
Of the naming of reasons.
The fifteenth instruction.
To finde a fourth number proportionall.

Here followeth the contents of the second booke, reduced in the maner of an Alphabet vnder certaine titles, for the ease of those which are desirous to finde the questions appertaining vnder each of the said titles.

B.

Questions of buying and selling, many sorts of wares.

62.63.64.65.69. *and vnto the* 105. 108. 110. 112.114. *and vnto the* 125. 127. *and vnto the* 187. 189. *and vnto the* 204. 384. 385. 386. 392, 395. 396 498.

Questions of buying and selling of golde and siluer.

113. 188. 233. 234. 235. 492. 513.

Questions of buying and selling of tapistrie.

367. 398 399. 465.

Questions of buying and selling respecting tare.

400. 500. 501. 502.

Question of buying and selling by hauer de poiz *waight, and subtell waight.*

393.

Questions of buying and selling for gaine or losse, without time.

319. 320. 321. 322. 331. 363. 370. 401 405. 408. 425. 426. 473. 479. 480. 481. 508. 531. 533. 534.

Questions of buying and selling for gaine or losse, with time.

402. 409. 410. 411. 412. 413. 414. 415. 416. 417. 423. 424. 427. 430. 505. 507. 509. 520. 521. 522. 523. 524. 528. 532. 539. 540. 560. 561. 562. 563.

Question of buying and selling wares at seuerall prices, and yet of one sort as much as of an other, for a summe of money knowne.

391.

Questions of buying or selling wares of diuers prices at one price, for gaine or losse. these are in loss & gaine Wa

374. 533. 534. 560. 561. 562.

Questions of buying and selling, respecting, tare, cloffe, and trett.

499. 503. 504.

Questions of bartering one ware for another.

225. 226. 229. 230. 231. 232. 421. 422. 434. 435. 446.

Questions of bartering one ware for another, and to haue part money.

332. 333. 334. 372. 387. 436. 441. 467. 490. 493. 498. 511. 514. 517. 519. 527. 530. 532. 550. 551.

Questions of companie without time.
227. 228. 337. 338. 343. 344. 345. 346. 347. 348. 359. 368. 383. 406. 407. 438. 439. 444. 445. 449. 450. 471. 472. 477. 478. 488. 489. 494. 495. 525. 535. 536.

Questions of company with time.
377. 394. 483. 484. 537. 538. 543. 548. 549.

Questions of carriages from place to place.
454. 458.

Questions of clothes.
381. 382.

D

Question of a debter that doth compound for his debt.
239.

Question of an ill debters best offer.
238.

E.

Questions of exchange betweene London and Antwarpe.
240. 256. 271. 284. 289. 296. 297. 305.

Questions of exchange betweene London and Hamborow.
241. 465. 272. 274. 275. 288. 306. 307. 388. 389.

Questions of exchange betweene London and Dantzig.
242. 260. 263. 266. 287. 290. 292. 304.

Questions of exchange betweene London and Francford.
276. 279. 298 302.

Questions of exchange betweene London and Noremberge.
278. 283. 295. 300.

Questions of exchange betweene London and Roane and Paris.
259. 264. 277. 299.

Questions of exchange betweene London and Lions.
244. 247.

Questions of exchange betweene London and Rome.
243. 246. 257. 269. 280. 286. 293. 303.

Questions of exchange betweene London and Venice.
245. 267. 270. 273. 281 285. 291. 301.

Questions of exchange betweene London and Spaine.
258. 261. 262. 268. 282. 294.

Questions to know at what rate we make the exchange, transporting money or wares from one countrey into an other countrey.

248.249.250.251.252.253.254.255.

Question to know at what rate the exchange must be reckened at double vsans: the exchange at vsans and interest per cento per anno *being knowne.*

433.

Questions to know at what rate the exchange must be reckened, in the places where there are two kinds of mony current.

388.389.

Questions of exchange and rechange from diuers places vnto diuers places.

308.309.310.311.312.313.341.440.451.452.453.460.461.462.464.474.475.497.506.516.541.542.

F.

Questions of Factorie.

314.315.316.317.428.429.463.

G.

Question to finde how much gold or siluer is bought or solde in one summe.

61.

Question to finde the remainer of gold or siluer.

57.

Questions to find how much fine gold or siluer an ingot containeth.

236.237.366.

I.

Questions of interest, without interest vpon interest.

216.217.218.318.323.397.403.418.419.420.447.459.466.482.

Questions of interest vpon interest.

404.491.544.545.546.547.553.554.559.564.565.566.567.

L.

Questions of lending money in recompence of money borrowed before time.

223.224.

M.

Questions to finde how much mony is owing in one summe.

58.59.

Questions

Queſtions to finde the remainer of money owing.
50.51.52.53.
Queſtions of reducing one ſort of money into an other.
1.2.44.
Queſtions of reducing one ſort of money into part or parts of an other.
8.9.15.21.22.
Queſtions of reducing many ſorts of money into one.
16.17.20.41.
Queſtion of reducing many ſorts of mony into part or parts of an other.
23.
Queſtions of reducing one ſort of money into many other ſorts.
27.28.40.
Queſtions of reducing part or parts of one ſort of money into an other.
31.32.36.
Queſtion of reducing part or parts of one ſort of mony into many.
39.
Queſtions of mixtions of wines, and wine and water
221.325.378.379.
Queſtions of mixtions of golde, ſiluer, and other mettels.
219.222.326.328.329.330.339.340.342.349.350.351.354.
375.380 442.443.468.469.470.476.496.557.
Queſtions of reducing the meaſures of one countrey into the meaſures of an other countrey.
205.206.207.208.209.210.214.215.456.457.552.555.

P.

Queſtions of paying and receauing of money.
66.67.68.106.107.109.111.126.376.390.
Queſtions of paying and receauing with profit or loſſe.
361.362.371.
Queſtions of paying or receiuing of debts due at many ſeuerall times, all at one time, and alſo at ſeuerall times.
324.352.353.355.356.357.358.364.365.437.487.532.558.
Queſtions of purified gold or ſiluer in the fire.
220.327.

W

Queſtions of reducing one ſort of waight into another.

3. 4 5. 6. 7. 45. 47. 4?.

Queſtions of reducing one ſort of waight into part or parts of an other.

10. 11. 12. 13. 14.

Queſtions of reducing many ſorts of waights into one.

18. 19. 25. 26. 42. 43.

Queſtions of reducing one ſort of waight into many other.

29. 30. 46. 48.

Queſtions of reducing part or parts of one ſort of waight into an other.

33. 34. 35. 37. 38.

Queſtion to finde how much ware is bought or ſolde in one ſumme.

60.

Queſtions to finde the remaner of wares.

54. 55. 56.

Queſtions of reducing the waights of one countrey into the waights of an other countrey.

211, 212, 213. 455. 529. 556.

Queſtions of ſending wares or money from one countrey into an other countrey.

335. 336. 360. 369. 373. 431. 432. 448. 464. 475. 485. 486. 510. 512. 515. 518. 526.

The end of the contents.

THOMAS MASTERSON HIS addition to his first booke of *Arithmetick*.

Definitions.

1

The addition to the declaration there.

IF we do not first know and consider one thing perticularly or by it selfe: we cannot know, distinguish, and discerne, one thing from many things.

2

The addition to the declaration there.

Then number doth name, distinguish, and expresse, how many perticular one things, any quantitie is, or any multitude doth containe.

3

The addition to the declaration there.

Numbers of one kinde, are numbers of things of one like name and kinde, as 9 pound of money, and 27 pound of money or 6 pound weight, and 4 pound weight, or 3 elles, and 2 elles, or 5 yardes, and 7 yardes, &c. But those numbers of things of such names, which by some knowne meanes may be reduced and brought to be of one like name and kinde: we repute abusiuely to be also of one kinde; for that they are of one kinde in power: as when it is knowne that 20 shillings of money is one pound of money, then 2 pounds of money, and 6 shillings of money, are esteemed to be of one kinde, though they are of two seuerall names: for they may be reduced vnto 40 shillings, and 6 shillings, or vnto 2 pounds, and $\frac{3}{10}$ pounds. If it be knowne that 12 pence is one shilling, and 20 shillings one pound, then 4 shillings, and 8 pence are reputed to be of one kinde, for they may be reduced vnto 48 pence and 8 pence, or vnto foure

ſhillings, and $\frac{2}{3}$ ſhillings, or vnto $\frac{1}{7}$ pound and $\frac{1}{3}$ pound. If it be knowne that 4 quartrons is one hundreth waight, and that 28 pounds is one quartron, then 7 hundreth waight, and 3 quartrons 14 pounds, are ſaid to be of one kinde: for they may be reduced vnto 7 hundreth waight and $\frac{7}{8}$ of one hundreth weight: or vnto 28 quartrons, and $3\frac{1}{2}$ quartrons. or vnto 784 pounds, and 948 pounds, &c.

4. and 5.

The addition to the declarations there.

THen one number is not the part, parts, or many times of an other number, vnleſſe that they be both of one kinde.

6

The addition to the declaration there.

THere is no reaſon betweene quantities of ſeuerall kindes, as betweene 7 elles, and nine pounds or betweene 5 horſes, and 3 ſheepe or betweene 3 pounds of money, and 4 yardes of cloath, &c: for reaſon is onely betweene quantities of one kinde.

7

The addition to the declaration there.

TErmes, are quantities, giuen taken, or imagined, hauing limites or bounds which they may not paſſe, to be either more, leſſe or other then they are giuen, taken, or imagined, as 7 yardes of cloath, 11 pound waight of Saffron, 20 pound of money, 100 oxen &c: And hereby it is manifeſt, that there is no proportion in any three termes, vnleſſe that thoſe three termes be all of one kinde: as that there is no proportion in 4 elles, 8 elles, and 16 pound: or in 4 elles, 8 yardes, and 16 pound: but in 4 elles, 8 elles, and 16 elles &c.

8

The addition to the declaration there.

AS theſe numbers 8 elles 12 elles: 6 pound and 9 pound, or theſe numbers 4 pound, 8 pound: 9 yards, 18 yardes: 5 men, 10 men &c: are called proportionall numbers. So thoſe quantities which are not in one, the ſame, or like reaſon, are called improportionals. As theſe, 8 elles, 12 elles, 3 pounds, 8 pounds:

or

or theſe. 4 pound waight, 7 pound waight, 9 yardes, 18 yardes, 7 pound of money, 19 pound of money, &c.

9

The addition to the declaration there.

THe art of Arithmetick doth aſwell preſuppoſe in ſight of the nature and effect of things, as knowledge of all other arts and ſciences, &c.

The addition to the firſt inſtruction of my firſt booke. Of Numeration.

ALL numbers are the numbers of ſome things: for though we vſe figures in our examples, without expreſſing what things thoſe figures ſignifie: that is onely done to the end that the examples might be extended to a more generality of things, in leauing the figures, to ſignifie what things you will name them to be, and not that there are any numbers in nature (as ſome thinke and ſo teach others) which are not the numbers of things. Therefore as it is conuenient in the vſe of things, that the things numbred be named and ſignified, ſo it is commendable that the ſame bee done effectually, briefly, orderly, and intellectualy: which (though each may vſe the characters he liketh beſt) we accompliſh in part after the manner following: vſing the ſame in all our Arithmeticke, as pounds of money we ſignifie thus, l. pounds of waight thus, L. ſhillings of money thus, ſh. pence of money thus, d. hundreth waight thus, C. quartron waight thus, qr. ounce waight thus oz. penny waight thus di. graine waight thus, gr. karrat waight thus, kar: florins thus, flo: kreutzers thus, kr. and many other karacters of things we vſe, whoſe ſignifications may very well be conceiued by the aforeſaid, and by the places where they are vſed, &c. Now when we expreſſe 123 pounds of money, we write it thus 123 l. or thus, l 123. or thus l 123 . — . — where the lines written in that laſt order, do ſignifie no ſhillings, & no pence: by reaſon of the prick placed between ech line. 97 pound 19 ſhillings & 11 pēce of mony, we write thus, l 97 ſh 19 d 11. or thus 97 l 19 ſh 11 d. or thus l 97.19.11.

or laſtly thus 97. 19. 11 d. and 1093 pound 9 pence of mony, thus l 1093 d 9. or thus 1093 l 9 d. or thus, l 1093 . —. 9 or thus 1093 . —. 9 d. and 113 pound 12 ſhillings of money, thus l 113 ſh 12. or thus 113 l 12 ſh. or thus l 113. 12. — or thus 113. 12. —d. & 13 ſhillings 7 pence of money. thus 13 ſh 7 d. or thus, ſh 13 d 7. or thus ſh 13. 7 or thus 13. 7 d. and the like in effect of all other. Vnderſtanding that the number following the prick, is of the aforegoing money or waight, &c. and of the next vſuall name in thoſe caſes, as 4 hundreth waight 3 quartrons 17 pound & 11 ounces, is writtē thus, 4 C 3 qr 17 L 11 oz. or thus C 4 qr 3 L 17 oz 11. or thus C 4. 3. 17. 11 or thus 4. 3. 17. 11 oz. & 6 hundreth waight 11 ounces. thus 6 C 11 oz. or thus C 6 oz 11. or thus C 6. —. — . 11. or thus 6. — . — . 11 oz. &c.

The addition to the 2 inſtruction of my firſt booke. Of addition.

IF 7340451 and 1618321 be giuen to be added together, place the numbers giuen (according vnto the ſaid 2 inſtruction) one vnder the other, that is 2 vnder 5. 3 vnder 4. 8 vnder 0. 1 vnder 4. 6 vnder 3. and 1 vnder 7, as here you ſee them placed in the example, and drawe a line vnder them, as here you ſee it done in the example: then ſay (according to the ſaid 2 inſtruction) 2 and 5 is 7, placing that 7 vnder them, 3 and 4 is 7, placing that 7 vnder them, 8 and 0 is 8, placing that 8 vnder them, 1 and 4 is 5, placing that 5 vnder them, 6 and 3 is 9, placing that 9 vnder them, 1 and 7 is 8, placing that 8 vnder them, as here you ſee it done in the examples. Now 8 9 5 8 7 7 1 which is in this maner newly written vnder the line, is called the aggregat and (according to the ſaid 2 inſtruction) doth ſignifie aſmuch in value as the two numbers 7340451 and 1618321 giuen. If 458943

7340451
1618321
7
7340451
1618321
77
7340451
1618321
877
7340451
1618321
5877
7340451
1618321
95877
7340451
1618321
8958771

elles,

elles, and 790879 elles, be giuen to be added together. Place the numbers giuen (according to the ſaid 2 inſtruction)9 vnder 3. 7 vnder 4 .8 vnder 9. 0 vnder 8, 9 vnder 5 and 7 vnder 4, with a line vnder them, as here you ſee them placed in the example. Then ſay 9 and 3 is 12, and (according to the ſaid 2 inſtruction) write that 2 which ſtandeth in the firſt place of 12 their aggregat, vnder them: and adde the other figure 1 in his proper value (eſteemed as being a part from the firſt) vnto the proper value of the figures which ſtand in the next places: ſaying 1 and 7 is 8 and 4 is 12: writing that 2 vnder them, and adding that 1 vnto the figures which ſtand in the next places: ſaying 1 and 8 is 9 and 9 is 18 writing that 8 vnder them, and adding that 1 vnto the figures which ſtand in the next places, ſaying 1 and 0 is 1 and 8 is 9, and write that 9 vnder them. Then ſay 9 and fiue is 14. writing that foure vnder them, and adding that 1 vnto the figures which ſtand in the next places, ſaying 1 and 7 is 8, and 4 is 12, writing that 2 vnder them, and adding that 1 vnto the next figures, which are none, for we are come to the laſt, and therefore write it downe by his fellow as it was before: as here you ſee it done in the example: then the aggregat is 1249822 elles, and doth ſignifie as much in value as the aforeſaid numbers giuen. If theſe ſeauen numbers here written one vnder the other (according to the ſaid 2 inſtruction) with a line vnder them, be giuen to be added together. Say 3 and 8 is 11 and 6 is 17 and 9 is 26 and 3 is 29 and 0 is 29 and 6 is 35, writing that 5 vnder them, and adding that 3 vnto the figures in the next places:

458943 elles
790879 elles

2

458943 elles
790879 elles

22

458943 elles
790879 elles

822

458943 elles
790879 elles

9822

458943 elles
790879 elles

49822

458943 elles
790879 elles

1249822 elles

798456 C
908000 C
749823 C
847989 C
479886 C
347918 C
471103 C

4603175 C

ſaying 3 and 0 is 3 and 1 is 4 and 8 is 12 and 8 is 20 and 2 is 22 and 5 is 27, writing that 7 vnder them, and adding that 2 vnto the figures in the next places ſaying 2 and 1 is 3 and 9 is 12 and 8 is 20 and 9 is 29 and 8 is 37 and 4 is 41, writing that 1 vnder them, and adding that 4 vnto the figures in the next places, ſaying 4 and 1 is 5 and 7 is 12 and 9 is 21 and 7 is 28 and 9 is 37 and 8 is 45 and 8 is 53, writing that 3 vnder them, and adding that 5 vnto the next figures, ſaying 5 and 7 is 12 and 4 is 16 and 7 is 23 and 4 is 27 and 4 is 31 and 9 is 40, writing that 0 vnder them, and adding that 4 vnto the next figures, ſaying 4 and 4 is 8 and 3 is 11 and 4 is 15 and 8 is 23 and 7 is 30 and 9 is 39 and 7 is 46, writing that 46 vnder them for that they are the laſt figures. Then 4 6 0 3 1 7 5 C is the aggregat, and is in value aſmuch as all the aforeſaid numbers giuen. If the 14 numbers here written one vnder the other with a line vnder them, be giuen to be added together. Say 9 and 6 is 15 and 8 is 23 and 8 is 31 and 9 is 40 and 7 is 47 and 4 is 51 and 9 is 60 and 6 is 66 and 8 is 74 and 7 is 81 and 8 is 89 and 9 is 98 and 8 is 106 and 9 is 115, writing that 5 vnder them, and adding that 11 vnto the next figures, ſaying 11 and 6 is 17 and 8 is 25 and 3 is 28 and 9 is 37 and 4 is 41 and 1 is 42 and 6 is 48 and 7 is 55 and 3 is 58 9 is 67 and 7 is 74 and 8 is 82 and 9 is 91, writing that 1 vnder them, and adding that 9 vnto the next figures, ſaying 9 and 7 is 16 and 2 is 18 and 8 is 26 and 8 is 34 and 2 is 36 and 5 is 41 and 6 is 47 and 2 is 49 and 7 is 56 and 6 is 62 and 8 is 70 and 8 is 78, writing that 8 vnder them, and adding that 7 vnto the next figures, ſaying 7 and 3 is 10 and 6 is 16 and 7 is 23 and 4 is 27 and 3 is 30 and 4 is 34 and 5 is 39 and 9 is 48 and 4 is 52 and 4 is 56 and 8 is 64 and 7 is 71, writing that 1 vnder them, and adding that 7 vnto the next figures, ſaying 7 and 4 is 11 and 7 is 18 and 8 is 26 and 8 is 34 and 3 is 37

98 7899	flo:
8888 88	flo:
7 34679	flo:
3 84798	flo:
7 89237	flo:
24 5678	flo:
7 34566	flo:
5 83 219	flo:
7 84004	flo:
8 77847	flo:
46 899	flo:
3238	flo:
788	flo:
66	flo:
9	flo:
77618 15	flo:

and

and 4 is 41 and 8 is 49 and 8 is 57 and 3 is 60 and 8 is 68 and 8 is 76, writing that 6 vnder them, and adding that 7 vnto the next figures, saying 7 and 8 is 15 and 7 is 22, and 5 is 27 and 7 is 34 and 9 is 43 and 7 is 50 and 3 is 53 and 7 is 60 and 8 is 68 and 9 is 77, writing that 77 vnder them for that they are the laſt figures. Then 7 7 6 1 8 1 5 ſlo: is the aggregat, and in value is as much as all the aforeſaid numbers giuen, &c.

The addition to the third inſtruction of my firſt booke.

Of Subſtraction.

IF 2 6 5 2 3 2 1 be giuen to be abated out of 7 8 9 4 5 6 1. write the leſſer number (according to the ſaid 3 inſtruction) vnder the greater, with a line vnder them, as if they ſhould be added together: as here you ſee it done in the example. Then ſay 2 out of 6 remaineth 4, writing that foure vnder them. Then three out of 5 remaineth 2, writing that 2 vnder them. Then 2 out of 4 remaineth 2, writing that 2 vnder them. Then 5 out of 9 remaineth foure, writing that 4 vnder them. Then 6 out of 8 remaineth 2, writing that 2 vnder them. Then 2 out of 7 remaineth 5, writing that 5 vnder them, as here you ſee it done in the examples, & then (according to the ſaid 3 inſtructiō) 5 2 4 2 2 4 1 is the number that the greater number giuen exceedeth the leſſer: and therefore the remainer, the leſſer being abated out of the greater. If 1 9 8 7 8 9 L bee giuen to be abated out of 4 7 0 4 7 6 L. write the leſſer number vnder the greater, with a line vnder them, as if they ſhould bee

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7 8 9 4 5 6 1
2 6 5 2 3 2 1
-------------
        4
-------------
7 8 9 4 5 6 1
2 6 5 2 3 2 1
-------------
      2 4
-------------
7 8 9 4 5 6 1
2 6 5 2 3 2 1
-------------
    2 2 4
-------------
7 8 9 4 5 6 1
2 6 5 2 3 2 1
-------------
  4 2 2 4
-------------
7 8 9 4 5 6 1
2 6 5 2 3 2 1
-------------
5 2 4 2 2 4 1
```

added together, as here you ſee it done in the example: then ſay (according to the ſaid 3 inſtruction) 9 out of 6 you cannot, therefore (according to the aforeſaid 3 inſtruction) borrow one of the 7 next vnto it, which is worth 10 in that place: and adde that 10 vnto the ſaid 6, the aggregat is 16. Now ſay 9 aforeſaid out of this ſaid 16 remaineth 7, writing that 7 vnder them. Then ſay 8 out of 6 (for ſo you muſt call the next 7 according to the aforeſaid 3 inſtruction, for that you haue borrowed one from the 7) you cannot therefore borrow one of the 4 next vnto it, which is worth 10 in that place: and adde that 10 vnto the ſaid 6, is 16, but 8 aforeſaid out of that 16 remaineth 8, writing that 8 vnder them. Then 7 out of 3 (for ſo you muſt call the next 4 for that you haue borrowed one from 4) you cannot therefore borrow one of the 0 next vnto it, and that you cannot, therefore borrow one of the 7 next vnto the 0, which is worth 10 in the place of the ſaid 0, and then of that 10 borrow one, which is worth 10 in that place, and adde that 10 vnto the aforeſaid 3, is 13, but 7 aforeſaid out of that 13 remaineth 6, writing that 6 vnder them. Then 8 out of 9 (for ſo you muſt call the 10 which was borrowed of the 7 next vnto the 0, for that you haue borrowed one from it) remaineth 1, writing that 1 vnder them Then 9 out of 6 (for ſo you muſt call the next 7 for that you haue borrowed one frō it) you cannot, therfore borrow one of the 4 next vnto it, which is worth 10 in that place: and adde that 10 vnto the ſaid 6, is 16, but 9 out of that 16 remaineth 7, writing that 7 vnder them. Then 1 out of 3 (for ſo you muſt call the next 4, for that you haue borrowed one from it) remaineth two, writing that 2 vnder them, as here you ſee it done in the example: and then (according to the aforeſaid 3 inſtruction) 271687 L, is the number that the greater number giuen exceedeth the leſſer, and therefore the remainer, the leſſer

470476 L	
198789 L	
	7
470476 L	
198789 L	
	87
470476 L	
19878 9 L	
	687
470476 L	
198789 L	
	1687
470476 L	
198789 L	
	71687
470476 L	
198789 L	
271687 L	

ſer being abated out of the greater. If 205077 C be giuen to be abated out of 700024 C. write the leſſer number vnder the greater with a line vnder them, as if they ſhould be added together as here you ſee it done in the example. Then ſay 7 out of 4 you cannot: therefore borrow one of the 2 next vnto it, which is worth 10 in that place, and adde that 10 vnto the ſaid 4, is 14, but 7 aforeſaid out of that 14 remaineth 7, writing that 7 vnder them. Then 7 out of 1 (for ſo you muſt call the next 2 for that you haue borrowed one from it) you cannot: therefore borrow one of the 0 next vnto it, and that you cannot, therefore borrow 1 of the next 0 vnto it, and that you cannot: therefore borrow 1 of the 0 next vnto it, and that you cannot alſo. Therefore borrow one of the 7 next vnto that, which is worth 10 in the next place and of that 10 borrow one, which is worth ten in the next place, and then of that 10 borrow one, which is worth ten in the next place, and of that 10 borrow 1 which is worth 10 in the next place, and adde that 10 vnto the ſaid 1, is 11, but 7 aforeſaid out of that 11 remaineth 4, writing that 4 vnder them. Then 0 out of 9 (for ſo you muſt call the 10 which was in that place for that you haue borrowed one from it) remaineth 9, writing that 9 vnder them. Then 5 out of 9 (for ſo you muſt call the 10 which was in that place, for that you haue borrowed 1 frō it) remaineth 4, writing the ſame vnder thē. Then 0 out of 9 (for ſo you call the 10 which was in that place, for that you haue borrowed 1 from it) remaineth 9, writing the ſame vnder thē. Thē 2 out of 6 (for ſo you muſt call the next 7 for that you borrowed 1 frō it) remaineth 4, writing that 4 vnder thē as here you ſee it done in the exāple. And then 494947 C is the remainer, the leſſer number giuen being abated out of the greater.

700024 C
205077 C
494947 C

If 20006 maruadiſe be giuen to be abated out of 600000 maruadiſe. Write the leſſer number giuen vnder the greater, with a line vnder them, as if they ſhould be added together, as here you ſee it done in the example. Then ſay 6 out of 0, you cannot: therefore borrow &c. as you did in the working of the laſt example. by reaſon whereof that 0 is taken for

600000 maruadiſe
20006 maruadiſe
579994 maruadiſe

10, and all the other 0 following each for 9, and the 6 next vnto them, for 5. but 6 aforesaid out of that aforesaid borrowed 10 remaineth 4, writing that 4 vnder them. Then 0 out of 9 remaineth 9, writing that 9 vnder them. Then 0 out of 9 remaineth 9, writing that 9 vnder them. Then 0 out of 9 remaineth 9, writing that 9 vnder them. Then 2 out of 9 remaineth 7, writing that 7 vnder them. Then 0 out of 5 (for so we must call the next 6) remaineth 5, writing that 5 vnder the said 6, as here you see it done in the example. And then (according to the aforesaid 3 instruction) 579994 maruadise is the number, that the greater number giuen exceedeth the lesser: and therefore the remainer, the lesser being abated out of the greater, &c.

The addition to the 4 instruction of my first booke.

Of Multiplication.

FIrst learne the table of multiplication (placed in the 4 instruction of my first booke at the beginning thereof) very perfectly by heart. And then if 984723 l be giuen to be multiplied by 3 elles. Write the numbers giuen (according to the aforesaid 4 instruction) as if they should be substracted, with a line vnder them, as here you see it done in the example. Then say (according to the said 4 instruction) 3 times 3 is 9, writing that 9 vnder them. Then 3 times 2 is 6, writing that 6 vnder the 2: then 3 times 7 is 21, writing the 1 of that 21 vnder the 7, and keeping the 2 of that 21 in your minde. Then 3 times 4 is 12, and that 2 which you kept in your minde is 14, writing the 4 of that 14 vnder 4, and keeping the 1 of that 14 in your minde. Then 3 times 8 is 24, and that 1

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984723
     3
------
     9
------
984723
     3
------
    69
------
984723
     3
------
   169
------
984723
     3
------
  4169
------
```

which

which you kept in your minde is 25, writing the 5 of that 25 vnder 8, and keeping the 2 in your minde. Then 3 times 9 is 27, and 2 which you kept in your minde is 29, writing the 9 vnder the 9, and the 2 next in order by it, as here you see it done in the examples: for it is produced of the last figure of the vppermost number, and also there can be no other product to adde a number vnto, as the other figures kept in minde haue had. And then (according to the aforesaid 4 instruction) 2954169 l, or 2954169 elles, is the product of the two numbers giuen multiplied together, containing the one of them, so many times as the other doth containe vnits. That is that 2954169 l is the aggregat of 984723 l, 984723 l and 984723 l. or that 2954169 elles is the aggregat of 3 elles 984723 times, set downe and added together. If 890084 yardes be giuen to be multiplied by 5 oz. Write the numbers giuen as if they should be substracted, with a line vnder them, as here you see it done in the example. Then say 5 times 4 is 20, writing the 0 of that 20 vnder them, and keeping the 2 of that 20 in your minde. Then 5 times 8 is 40 and 2 which you kept in your minde is 42, writing the 2 of that 42 vnder the 8, and keeping the 4 of that 42 in your minde. Then 5 times 0 is 0 and the 4 which you kept in your minde, is 4, writing that 4 vnder the 0. Then 5 times 0 is 0, writing that 0 vnder the 0. Then 5 times 9 is 45, writing the 5 of that 45 vnder the 9, and keeping the 4 of that 45 in your minde. Then 5 times 8 is 40, and 4 which you kept in your minde is 44, writing that 44 vnder the 8 in order by the other figures, as here you see it done in the example. And then 4450420 yardes. Or 4450420 oz: is the product of the two numbers giuen, containing the one of them so many times as the other doth containe vnits, &c: as in the last example. If 784378 L bee giuen to bee multiplyed

```
984723
     3
-------
 54169
-------
984723
     3
-------
2954169
```

pounds or elles

```
890084 yardes
     5 oz:
-------------
4450420 yards or oz.
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by 987 d: write the numbers giuen as if they ſhould be ſubſtracted with a line vnder them, as here you ſee it done in the example. Then ſay 7 times 8 is 56, writing the 6 vnder them, and keeping the 5 in mind. Then 7 times 7 is 49, & 5 you kept, is 54, writing the 4 vnder the 7, and keeping the 5. Then 7 times 3 is 21, and 5 you kept is 26, writing the 6 and keeping the 2. Then 7 times 4 is 28, and 2 you kept is 30, writing the 0, and keeping the 3. Then 7 times 8 is 56, and 3 you kept is 59, writing the 9, and keeping the 5. then 7 times 7 is 49, and 5 you kept, is 54, writing that 54 as you ſee in the example, becauſe it is the laſt. Then begin with 8, the next figure of the vndermoſt number: ſaying 8 times 8 is 64, writing the 4 of that 64 vnder 8 the figure of the vndermoſt number that you multiply with, keeping the 6 of that 64 in minde. Then 8 times 7 is 56, and 6 you kept, is 62, writing the 2 in order, following the laſt written figure and keeping the 6 in minde. Then 8 times 3 is 24 and 6 you kept is 30, writing the 0 and keeping the 3. Then 8 times 4 is 32, and 3 you kept is 35, writing the 5 and keeping the 3. then 8 times 8 is 64, and 3 you kept is 67, writing the 7 and keeping the 6. Then 8 times 7 is 56, and 6 you kept is 62, writing downe that 62 as you ſee it done in the example: for that it is the laſt. Then begin with 9 the next figure of the vndermoſt number: ſaying 9 times 8 is 72, writing the 2 vnder 9 the figure of the vndermoſt number that you multiply with, keeping the 7 in minde. Then 9 times 7 is 63, and 7 you kept is 70, writing the 0 in order following, and keeping the 7. then 9 times 3 is 27, and 7 you kept is 34, writing the 4 and keeping the 3. Then 9 times 4 is 36, and 3 you kept is 39, writing the 9 and keeping the 3. Then 9 times 8 is 72, and 3 you kept is 75, writing the 5 and keeping the 7. Then 9 times 7 is 63, and 7 you kept is 70, writing that 70 as here you ſee it done in the example, for that it is the laſt. Then draw a line vnder all thoſe new written figures, as here you ſee it done in the example, adding them in the order as they ſtand: ſaying 6 is 6, writing it vnder the ſame. Then 4 and

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   784378 L
      987 d
 ---------
  5490646
 6275024
7059402
---------
774181086 L or d
```

4 is

4 is 8, writing it vnder them. Then 2 and 2 is 4 and 6 is 10, writing the 0 vnder them, and keeping the 1. then 1 you kept and 0 is 1, and 0 is 1, and 0 is 1, writing it vnder them. Then 4 and 5 is 9 and 9 is 18, writing the 8 vnder them, and keeping the 1. Then 1 you kept and 9 is 10 and 7 is 17 and 4 is 21, writing the 1 vnder them, and keeping the 2. Then 2 you kept and 5 is 7 and 2 is 9 and 5 is 14, writing the 4 vnder them, and keeping the 1. then 1 you kept and 0 is 1 and 6 is 7, writing it vnder them. Then 7 is 7, writing that 7 vnder it: and then 7741810860 L. or 7741810860 d is the product of the two numbers giuen multiplied together. Containing the one of them, so many times as the other doth containe vnits: that is, that 7741810860 L is the aggregat of 7843787 L. 987 times set downe and added together, or 7741810860 d, the aggregat of 9878 d. 7843787 times set downe and added together. If 9678 florins be giuen to be multipled by 5600 d. Write the numbers giuen as if the 00 were not there: as here you see it done in the example. Then say 6 times 8 is 48, writing the 8 and keeping the 4. Then 6 times 7 is 42 and 4 you kept is 46, writing the 6 and keeping the 4. Then 6 times 6 is 36 and 4 you kept is 40, writing the 0 and keeping the 4. Then 6 times 9 is 54, and 4 you kept is 58, writing that 58 becausе it is the laſt. as here you see it done in the example. Then say 5 times 8 is 40, writing the 0 vnder the 5 you multiply with, and keeping the 4. Then 5 times 7 is 35, and 4 you kept is 39, writing the 9, and keeping the 3. Then 5 times 6 is 30, and 3 you kept is 33, writing the 3 and keeping the 3. then 5 times 9 is 45, and 3 you kept is 48, writing that 48 becausе it is the laſt. Then draw a line vnder them as here you see it done in the example: then write vnder the 00 (which are of the number giuen) vnder the line 00 iuſt vnder them adding the other figures newly written in the order as they ſtand: ſaying 8 is 8, writing it vnder the ſame. Then 0 and 6 is 6, writing it vnder them. Then 9 and 0 is 9, writing it vnder them. Then 3 and 8 is 11, writing 1 vnder them and

9678	flo:
5600	d
58068	
48390	
54196800	flo: or d

keeping 1. Then 1 you kept and 8 is 9, and 5 is 14, writing the 4 and keeping the 1. Then 1 you kept and 4 is 5, writing it vnder the ſame: as here you ſee it done in the example: and then 5 4 1 9 6 8 0 0 flo: or 5 4 1 9 6 8 0 0 d (as ſhall be thought meeteſt to attaine vnto the purpoſe pretended) is the product of the two numbers giuen multiplied together. But here is to be noted, that the vſe of the figure 0, doth ſerue to no other end in this art, then to dignifie the other nine figures in place and value, and that is the cauſe that we place the numbers giuen in the aforeſaid example without any regard had vnto the 0 0: for by that meanes we take from 5 6 0 0 d the number giuen, the dignitie and value which he hath by the 0 0: and then in the end, we reſtore againe the figures of the product to their dignitie and value due, by placing the 0 0, firſt detained from them, and now written againe in order before them vnder the line. If 3 2 4 6 0 0 d be giuen to be multiplied by 2 3 0 kreutzers, Write the numbers giuen without regard had to the nothings placed in the firſt places of them, as here you ſee it done in the example. Then ſay 3 times 6 is 18, writing the 8 vnder them, and keeping the 1. Then 3 times 4 is 12, and 1 you kept is 13, writing the 3 and keeping the 1. Then 3 times 2 is 6, and 1 you kept is 7, writing that 7. Then 3 times 3 is 9, writing that 9. Then ſay 2 times 6 is 12, writing the 2 vnder the 2 you multiply with, and keeping the 1. Then 2 times 4 is 8, and 1 you kept is 9, writing that 9. Then 2 times 2 is 4, writing that 4. Then 2 times three is 6, writing that 6, and drawing a line vnder them, as here you ſee it done in the example: then write downe the 0 0 0 (which are of the numbers giuen) vnder the line, adding the other numbers, ſaying 8 is 8, writing that 8. then 2 and 3 is 5, writing that 5: then 9 and 7 is 16, writing the 6 and keeping the 1. Then 1 you kept and 4 is 5 and 9 is 14, writing the 4 and keeping the 1. Then 1 you kept and 6 is 7, writing that 7, and then 7 4 6 5 8 0 0 0 d. or 7 4 6 5 8 0 0 0 krut: is the product of the two numbers giuen: containing the one of them, ſo many times as the other doth containe

3 2 4 6 0 0 d
2 3 0 krut:
9 7 3 8
6 4 9 2
7 4 6 5 8 0 0 0 d or krut.

containe vnits &c. as in the other examples. But here is to be noted that the figures of the product muſt be dignified by the figures of o, aſmuch in value and place, as both the numbers giuen are dignified by them. And therefore the o o o which are in the firſt places of both the numbers giuen, are written vnder the line before them, as here you ſee it done in the example. If 7 8 9 0 4 0 C be giuen to be multiplied by 7 0 0 8 0 0 yardes. Write the numbers giuen without regard had to the nothings placed in the firſt places of them, with a line vnder them, as here you ſee it done in the example. Then ſay 8 times 4 is 32, writing the 2 vnder them, and keeping the 3: then 8 times o is o and 3 you kept is 3, writing that 3: then 8 times 9 is 72, writing the 2 and keeping the 7: then 8 times 8 is 64, and 7 you kept is 71, writing the 1 and keeping the 7. Then 8 times 7 is 56 and 7 you kept is 63, writing that 63 becauſe it is the laſt. Then (leauing the o o which are written in the middle of the vppermoſt number giuen) ſay 7 times 4 is 28, writing the 8 vnder the 7 you multiply with, and keeping the 2. Then 7 times o is o, and 2 you kept is 2, writing that 2. Then 7 times 9 is 63, writing the 3 and keeping the 6. Then 7 times 8 is 56, and 6 you kept is 62, writing the 2 and keeping the 6. Then 7 times 7 is 49 and 6 is 55, writing that 55 (becauſe it is the laſt) and drawing a line vnder them, as here you ſee it done in the example. Then make addition, writing firſt the o o o vnder the line, ſaying 2 is 2, writing that 2, then 3 is 3, writing that 3: then 2 is 2, writing that 2: then 8 and 1 is 9, writing that 9. Then 2 and 3 is 5, writing that 5. Then 3 and 6 is 9, writing that 9: then 2 is 2, writing that 2. Then 5 is 5, writing that 5: then 5 is 5 writing that 5. and then 5 5 2 9 5 9 2 3 2 0 0 0 C. or 5 5 2 9 5 9 2 3 2 0 0 0 yardes (as ſhall be thought moſt conuenient to attaine to the purpoſe pretended) is the product of the two numbers giuen multiplied together, containing the one of them, ſo many times as the other doth containe vnits, &c.

```
7 8 9 0 4 0 C
  7 0 0 8 0 0 yardes
-------------
  6 3 1 2 3 2
5 5 2 3 2 8
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5 5 2 9 5 9 2 3 2 0 0 0 C or yardes
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The addition to the 5 inſtruction of my firſt booke.

Of Deuiſion.

IF 9 7 8 4 5 6 yardes be giuen to be deuided or meaſured by 8 yardes: place the numbers giuen (according to the ſaid 5 inſtruction) the 8 of the deuider vnder 9 of the deuident, as here you ſee it done in the example. Then ſay, how many times is that 8 in the ſaid 9, 1 time, writing that 1 at the end of your number giuen, with a line between them (as here you ſee it done in the example) and that figure 1 is called the firſt figure found of the quotient and ſtandeth in the laſt place thereof. Then ſay that 1 times 8 (of the deuider) is 8 (ſtriking out that 8 of the deuider) out of 9 of the deuident ſtanding ouer the ſame (ſtriking out that 9 of the deuident) remaineth 1, and writing that 1 ouer that 9 as here you ſee done in the example. Then write and remooue your deuider 8 vnder the next figure of the deuident, which is vnder 7 of the deuident: as here you ſee it done in the example. Then ſay, how many times 8 (the deuider) in 17 (the number ſtanding ouer the deuider) 2 times writing that 2 by the 1 laſt found of the quotient as here you ſee it done in the example. Then ſay that 2 times 8 (of the deuider) is 16 (ſtriking out that 8) and that 16 out of 17 (the number ſtanding ouer the deuider) remaineth 1 (ſtriking out the 17) and writing that 1 ouer the 7 of the ſaid 17, as here you ſee it done in the example. Then remooue the deuider 8 one figure further vnder 8 of the deuident, and ſay 1 how many times 8 (of the deuider) in 18 (the number ouer it) 2 times, writing that 2 by the figure laſt found of the quotient: ſaying that 2 times 8 (the deuider) is 16 (ſtriking out that 8) out

```
9 7 8 4 5 6 (
  8

9 7 8 4 5 6 (1
  8

  1
9 7 8 4 5 6 (1
  8

  1
9 7 8 4 5 6 (1
  8 8

  1
9 7 8 4 5 6 (12
  8 8

  1 1
9 7 8 4 5 6 (12
  8 8

  1 1
9 7 8 4 5 6 (12
  8 8 8

  1 1
9 7 8 4 5 6 (122
  8 8 8
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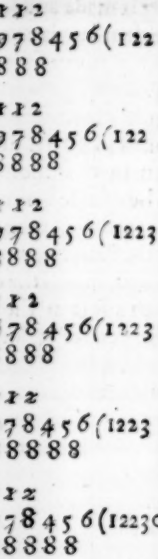
of 18 (the number ouer the deuider) remaineth 2 (ſtriking out that 18) and writing that 2 ouer the 8 of the ſaid 18, as here you ſee it done in the examples. Then remoue the deuider 8 one figure further vnder 4 of the deuident: and ſay how many times 8 (of the deuider) in 24 (the number ouer it) 3 times writing that 3 by the other figures found of the quotient: ſaying that 3 times 8 (the deuider) is 24 (ſtriking out the 8) out of 24 (the number ouer the deuider, ſtriking the ſame out) remaineth nothing: as here you ſee all the ſame done in the examples. Then remoue the deuider 8 one figure further vnder 5 of the deuident: and ſay how many times 8 (of the deuider) in 5 (ſtanding ouer it) o times, writing that o by the other figures found of the quotient, ſaying that o times 8 (the deuider) is o (ſtriking out that 8) out of 5 (the number ouer the deuider) remaineth that 5 ſtill: and ſo there is no more to be done at this remooving of the deuider, becauſe the figure of the quotient now found is o, as here you ſee in the example. Then remoue 8 the deuider one figure further, vnder 6 of the deuident: and ſay how many times 8 (the deuider) in 56 (the number ouer the ſame) 7 times, writing that 7 by the other figures found of the quotient, ſaying that 7 times 8 (the deuider) is 56, (ſtriking out that 8) out of 56 (the number ouer the deuider 8) remaineth nothing, ſtriking out &c. as here you ſee it done in the examples. Thus in this manner (according to the aforeſaid inſtruction) this deuiſion or meaſu-



ring is made and finiſhed: for that in this maner 8 the figure of the deuider is come to be vnder 6 the firſt figure of the deuident, and the figures 1 2 2 3 0 7 found and written a part, are called the quotient, ſhewing that 8 yardes, the deuider giuen, is exactly ſo many times as the ſaid quotient doth ſignifie, contained in 9 7 8 4 5 6 yardes the deuident giuen, for that nothing remaineth at the laſt vnſtricken out. If 1 7 8 0 9 4 L be giuen to be deuided or meaſured by 8 3 L. place the numbers giuen (according to the aforeſaid 5 inſtruction) the 8 the laſt figure of the deuider, vnder the 7 the laſt figure ſauing one of the deuident, and all the other in order following, with a line at the end of the deuident: as here you ſee it done in the example. Then

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1 7 8 0 9 4 (
  8 3
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ſay how many times 8 (the laſt figure of the deuider) in 17 (the number ſtanding ouer it) 2 times, with conſidering and examining whether 3 the other figure of the deuider, will be alſo 2 times contained in the number which is, or ſhall come to be ouer it, ſaying in your minde 2 times 8 is 16, out of 17 remaineth 1 ouer the 7 of the 17, which 1 ſo written will make the 8 ouer the 3 of the deuider 18, and 2 times 3 is 6 out of 18 you can. This examination made and ſo found, write that 2 in the quotient, ſaying that 2 times 8 (the laſt figure of the deuider) is 16 (ſtriking out the ſaid 8) out of 17 (the number ſtanding ouer the 8 of the deuider) remaineth 1 (ſtriking out the ſaid 17) and writing that 1 ouer the 7 of the ſaid 17, as here you ſee it done in the example. Then ſay 2 (the figure laſt found of the quotient) times 3 (the next figure of the deuider) is 6 (ſtriking out the ſaid 3) out of 8 (the figure that ſtandeth ouer the ſaid 3 of the deuider) remaineth 2 (ſtriking out the ſaid 8) and writing that 2 ouer the ſaid 8, as here you ſee it done in the example. Then remooue the deuider 83 one figure further, as here you ſee it done in the example. Then ſay how many times 8 the laſt figure of the deuider) in 12 (the nũber ſtanding ouer it) 1 time, conſidering

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1 7 8 0 9 4 (2
  8 3
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    1 2
1 7 8 0 9 4 (2
  8 3
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    1 2
1 7 8 0 9 4 (2
  8 3 3
    8
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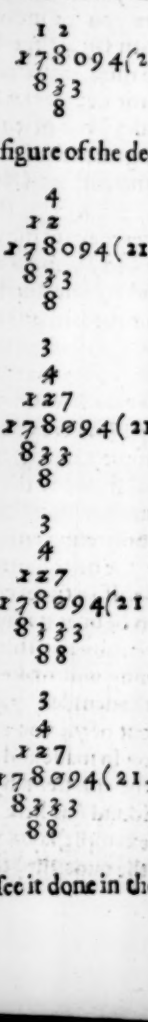
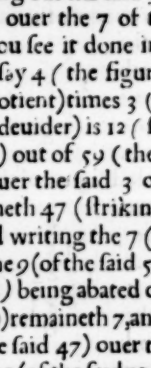
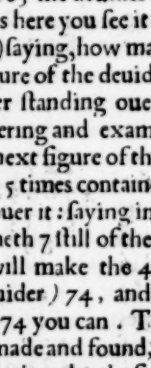
and

and examining in your minde in the maner aforesaid, whether 3 the next figure of the deuider, will be also 1 time contained in the number which is, or shall come to be ouer it: yet when the quotient is 1, the said examination is soone made, for if the number ouer the whole deuider 83, be asmuch or more then it: then you may alwaies take 1 time. But here the number ouer the deuider 83 is 120, which is more then it, and therfore the said 1 must be written in the quotient by the figure there last found (as here you see it done in the example) saying that 1 times 8 (the last figure of the deuider) is 8 (striking out that 8) out of 12 (the number standing ouer the said 8 of the deuider) remaineth 4 (striking out the said 12) and writing that 4 ouer the 2 of the said 12, as here you see it done in the example. Then say 1 (the last figure found of the quotient) times 3 (the next figure of the deuider) is 3 (striking out the said 3) out of 40 (the nũber that standeth ouer the said 3 of the deuider) remaineth 37 (striking out the said 40) & writing the said 37 ouer the said 40, in this maner: the 7 ouer the 0, & the 3 ouer the 4, as here you see it done in the example. Then remoue the deuider 83 one figure further, saying how many times 8 (the last figure of the deuider) in 37 (the nũber standing ouer it) 4 times, cõsidering & examining whether 3 (the next figure of the deuider) wilbe also 4 times contained in the number which is, or shall come to be ouer the said 3, saying in your mind 4 times 8 is 32, out of 37 remaineth 5 ouer the 7 of the 37, which 5 so written will make the 9 ouer the 3 of the deuider 59, & 4 times 3 is 12 out of 59 you can. This examination so made and found, write that 4 in the quotient, by the figure there last found (as here you see it done in the

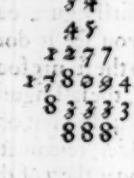


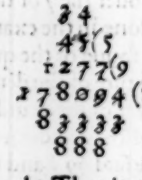
example) ſaying 4 (the figure laſt found) times 8 (the laſt figure of the deuider) is 32 (ſtriking out the ſaid 8) out of 37 (the number ſtanding ouer the ſaid 8 of the deuider) remaineth 5 (ſtriking out the ſaid 37) and writing that 5 ouer the 7 of the ſaid 37, as here you ſee it done in the example. Then ſay 4 (the figure laſt found in the quotient) times 3 (the next figure of the deuider) is 12 (ſtriking out the ſaid 3) out of 59 (the number ſtanding ouer the ſaid 3 of the deuider) remaineth 47 (ſtriking out the ſaid 59) and writing the 7 (of the ſaid 47) ouer the 9 (of the ſaid 59) for 2 (of the ſaid 12) being abated out of 9 (of the ſaid 59) remaineth 7, and writing the 4 (of the ſaid 47) ouer the 5 (of the ſaid 59) for 1 (of the ſaid 12) being abated out of 5 (of the ſaid 59) remaineth 4: as here you ſee it done in the example. Then remoue 83 the deuider one figure further (as here you ſee it done in the example) ſaying, how many times 8 (the laſt figure of the deuider) in 47 (the number ſtanding ouer it) 5 times, conſidering and examining whether 3 (the next figure of the deuider) will be alſo 5 times contained in the number which is, or ſhall come to be ouer it: ſaying in your minde 5 times 8 is 40, out of 47 remaineth 7 ſtill of the 47 vnſtricken out, which 7 ſo remaining will make the 4 ouer the 3 (of the deuider) 74, and 5 times 3 is 15 out of 74 you can. This examination ſo made and found, write that 5 in the quotient by the figure there laſt found (as here you ſee it done in the example) ſaying 5 (the figure found in the quotient) times 8 (the laſt figure of the deuider) is 40 (ſtriking

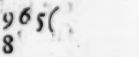




ſtriking out the ſaid 8) out of 47 (the number ſtanding ouer the ſaid 8 of the deuider) remaineth 7 of that 47 (ſtriking out only the 4 of that 47) vnſtricken out, as here you ſee it done in the example. Then ſay 5 (the figure laſt found in the quotient) times 3 (the next figure of the deuider) is 15 (ſtriking out the ſaid 3) out of 74 (the number which ſtandeth ouer the ſaid 3 of the deuider) remaineth 59 (ſtriking out the ſaid 74) and writing 9 ouer the 4 of that 74. For 5 of the aforeſaid 15 being abated out of the ſaid 4, borrowing one of the aforeſaid 7 of the ſaid 74 remaineth 9. and writing 5 ouer the 7 of that 74. For 1 of the ſaid 15 being abated out of the ſaid 7, eſteemed but for 6 becauſe 1 was borrowed from it remaineth 5, as here you ſee it done in the example. Thus in this maner this deuiſion or meaſuring is made and finiſhed: for that in this manner the firſt figure of the deuider is come to be vnder the firſt figure of the deuident, and the figures 2145 found and written apart, are called the quotient, ſhewing that 83 L the deuider giuen, is 2145 times contained in 178094 L the deuident giuen, and 59 L more: for that 59 doth remaine ouer the laſt placing of the deuider vnſtricken out. If 87939651 be giuen to be deuided, or meaſured by 97081 place the numbers giuen, 9 the laſt figure of the deuider, vnder 7 the laſt figure ſauing one of the deuident, and all the reſt in order following (as here you ſee them placed in the example) ſaying how many times 9 (the laſt figure of the deuider) in 87 (the number ſtanding ouer it) 9 times with conſidering and examining whether 7, 0 and 8 the other figures of the deuider) each apart, wilbe alſo 9 times contained in the numbers which are or ſhall come to be ouer them. Saying in your minde, 9 times 9 is 81 out of 87 remaineth 6 ouer the 7 of the 87, which 6 ſo written will make the 9 ouer the 7 of the deuider 69, and 9 times 7 is 63 out







of 69 remaineth 6 ouer the 9 of the said 69, which 6 so written will make the 3 ouer the 0 of the deuider 63, and 9 times 0 is 0 out of 63 you can, and inough remaining for the next figure: this examination made and so found, write that 9 by it selfe (for it is the first figure found of the quotient) as here you see it done in the example, saying 9 the figure found of the quotient) times 9 (the last figure of the deuider) is 81 (striking out the 9 of the deuider) out of 87 (the number standing ouer the 9 of the deuider) remaineth 6 (striking out the said 87) and writing that 6 ouer the 7 of the said 87 (as here you see it done in the example) saying 9 (the figure found of the quotient) times 7 (the next figure of the deuider) is 63 (striking out the 7 of the deuider) out of 69 (the number standing ouer the 7 of the deuider) remaineth 6 (striking out the said 69) and writing that 6 ouer the 9 of the said 69 (as here you see it done in the example) saying 9 (the figure last found of the quotient) times 0 (the next figure of the deuider) is 0, striking out that said 0 (as here you see it done in the example) saying 9 (the figure found of the quotient) times 8 (the next figure of the deuider) is 72 (striking out the 8 of the deuider) out of 639 (the number standing ouer the said 8 of of the deuider) in this order saying 2 (of the said 72) out of 9 (of the said 639) remaineth 7 (striking out the said 9) writing that 7 ouer the said 9. The 7 (of the said 72) out of 3 (of the said 639) you cannot therefore borrow one of the 6 next vnto it, saying 7 out of 13 remaineth 6 (striking out the said 3) writing that 6 ouer the said 3. Then 1 which you borrowed out of 6 remaineth 5 (striking out the said 6) and writing that 5 ouer it, as here you see it done in the example. Then remoue the deuider one figure further (as here you see it done in the example) saying, how many times 9 (the last figure

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  5
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figure of the deuider) in 5 (the number standing ouer the 9 of the deuider) 0 times (without any more consideration or examination for all the figures of the deuider being multiplied by it, produce euer 0) writing that 0 in the quotient by the figure there last found, and striking out all the figures of the deuider, as here you see it done in the example. Then remoue the deuider one figure further (as here you see it done in the example) saying how many times 9 (the last figure of the deuider) in 56 (the number standing ouer it) 6 times considering and examining, whether 7. 0 and 8 (the other figures of the deuider) euery one a part wilbe also 6 times contained in the number which is or shall come to be ouer them, saying in your minde 6 times 9 is 54, out of 56 remaineth 2 ouer the 6 of the 56, which 2 so written will make the 7 ouer the 7 (the next figure of the deuider) 27, but 6 times 7 is 42 out of 27 you cannot, therefore this examination so made and found: begin againe saying how many times 9 (the last figure of the deuider) in 56 (the nnmber standing ouer it) 5 times, and making the like examination as before, say 5 times 9 is 45 out of 56 remaineth 11, and so needeth no farther examination. For note, when in this manner there remaineth as much or more then the next figure of the deuider, then you may alwaies take that number of times. Therefore this examination so made and found, write that said 5 in the quotient by the figure there last found (as here you see it done in the example) saying 5 (the figure now found in the quotient) times 9 (the last figure of the deuider) is 45 (striking out the said 9) out of 56 (the number standing ouer that 9 of the deuider) remaineth 11 (striking out the said 56) writing that 11 remaining

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  6667
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 97088
  970

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  6667
8793965(90
 97088
  970

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 970888
  9700
   97

   5
  6667
8793965(905
 970888
  9700
   97
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ouer the ſaid 56. The 1 ouer the 6 of the 56, and the other 1 ouer the 5 of the 56 (as here you ſee it done in the example) ſaying 5 (the figure laſt found of the quotient) times 7 (the next figure of the deuider) is 35 (ſtriking out the 7 of the deuider) out of 117 (the number ſtanding ouer the ſaid 7 of the deuider) in this order 5 (the firſt figure of the ſaid 35) out of 7 (the firſt figure of the ſaid 117) remaineth 2 (ſtriking out the ſaid 7 of the 117) writing that 2 ouer that 7: ſaying 3 (the next figure of the ſaid 35) out of 11 (the two next figures of the ſaid 117) remaineth 8 (ſtriking out the ſaid 11) writing that 8 ouer the 1 in the firſt place of the ſaid 11 (as here you ſee it done in the example) ſaying 5 (the figure laſt found of the quotient) times 0 (the next figure of the deuider) is 0 ſtriking out that ſaid 0 of the deuider (as here you ſee it done in the example) proceeding and ſaying, 5 (the figure laſt found of the quotient) times 8 (the next figure of the deuider) is 40 (ſtriking out that 8 of the deuider) out of 8265 (the number ſtanding ouer the ſaid 8 of the deuider) in this order, 0 (the firſt figure of the ſaid 40) out of 5 (the firſt figure of the ſaid 8265) remaineth 5 ſtill, and 4 (the ſecond figure of the ſaid 40) out of 6 (the ſecond figure of the ſaid 8265) remaineth 2 (ſtriking out the ſaid 6) and writing that 2 ouer the ſaid 6 as here you ſee it done in the example. Thus in this manner, this deuiſion or meaſuring is made and finiſhed (according to the aforeſaid 5 inſtruction of my firſt booke) for that in this manner, the firſt figure of

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  18
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  18
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  9700
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  1(8
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 6667(2
8793965(5(905
 970888
  9700
   97
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of the deuider, is come to be vnder the firſt figure of the deuident, and the figures 9 0 5 found and written a part, are called the quotient, ſhewing that 8 7 9 3 9 6 5 1 doth containe 9 7 0 8 1 9 0 5 times and 8 2 2 5 1 more: becauſe 8 2 2 5 doth remaine ouer the laſt placing of the deuider vnſtricken out. If 4 7 5 9 6 7 d.be giuen to be deuided by 4 7 6 3 d place the numbers giuen (according to the aforeſaid 5 inſtruction) 4 the laſt figure of the deuider, vnder 7 the laſt figure, ſauing one of the deuident, and all the reſt in order following (as here you ſee it done in the example) ſaying how many times 4 (the laſt figure of the deuider) in 47 (the number ſtanding ouer the ſaid 4 of the deuider) 9 times (for more times then 9 you may neuer take) conſidering and examining whether 7. 6 and 3 (the other figures of the deuider) euery one a part, will be alſo 9 times contained in the number which is or ſhall come to be ouer them: ſaying in your minde 9 times 4 is 36 out of 47 remaineth 11 which is as much or more then the next figure of the deuider. Therfore you may take that number of times. This examination ſo made and found, write the ſaid 9 (the firſt figure found of the quotient) by it ſelfe (as here you ſee it done in the example) ſaying 9 (the figure found of the quotient) times 4 (the laſt figure of the deuider) is 36 (ſtriking out that 4 of the deuider) out of 47 (the number ouer the ſaid 4 of the deuider) remaineth 11 (ſtriking out the ſaid 47) and writing that 11 ouer the ſaid 47, as here you ſee it done in the example, ſaying 9 (the figure found of the quotient) times 7 (the next figure of the deuider) is 63 (ſtriking out the ſaid 7 of the deuider) out of 115 (the number ouer the ſaid 7 of the deuider) remaineth in the manner aforeſaid 2 ouer the 5 of the ſaid 115 (ſtriking out the ſaid 5) and 5 ouer the 11 of the ſaid 115 (ſtriking out the ſaid 11) as here you ſee it done the example, ſaying 9 (the figure found in the quotient) times 6 (the next figure of the deuider) is 54 (ſtriking out the ſaid 6 of the deuider) out of 529 (the number ouer the ſaid 6 of the deuider) remaineth in the manner

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aforesaid 5 ouer the 9 of the said 529 (striking out the said 9) 7 ouer the 2 of the said 529 (striking out the said 2) and 4 ouer the 5 of the said 529 (striking out the said 5) as here you see it done in the example Saying 9 (the figure found in the quotient) times 3 (the next figure of the deuider) is 27 (striking out the said 3 of the deuider) out of 56 (somuch as suffiseth, standing ouer the said 3 of the deuider to abate the aforesaid 27 from) remaineth in the manner aforesaid 29 ouer the said 56, being striken out: as here you see it done in the example. Then remooue the deuider one figure further (as here you see it done in the example) saying, how many times 4 (the last figure of the deuider) in 47 (the number ouer the said 4 of the deuider) 9 times, considering and examining whether 7. 6 and 3 (the other figures of the deuider) will be also contained 9 times in the number which is or shall come to be ouer them, saying in your minde, 9 times 4 is 36 out of 47 remaineth 11, which is asmuch and more then the next figure of the deuider: therfore you may take that number of times. This examination so made and found, write that 9 in the quotient by the last figure there found (as here you see it done in the example) saying 9 (the figure last found of the quotiēt) times 4 (the last figure of the deuider) is 36 (striking out the said 4 of the deuider) out of 47 (the number ouer the said 4 of the deuider) remaineth 11 (striking out the said 47) and writing the said 11 ouer it (as here you see it done in the example) saying 9 (the figure last found in the quotiēt) times 7 (the next figure of the deuider) is 63 (striking out the said 7 of the deuider) out of 112 (the nuber ouer the said 7 of the deui-

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 112
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  4
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  4
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  4
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  476

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  476
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der) remaineth in the maner aforesaid 49 ouer the said 112 being striking out (as here you see it done in the example) saying 9 (the figure last found in the quotient) times 6 (the next figure of the deuider) is 54 (striking out the said 6 of the deuider) out of 99 (ouer the said 6 of the deuider) remaineth in the manner aforesaid 45 ouer the said 99 being striking out (as here you see it done in the example,) saying 9 (the figure last found in the quotient) times 3 (the next figure of the deuider) is 27 (striking out the said 3 of the deuider) out of 57 (ouer the said 3 of the deuider) remaineth in the manner aforesaid 30 ouer the said 57 being striking out, as here you see it done in the example: thus in this manner this deuision or measuring is made and finished, because the first figure of the deuider is come to be vnder the first figure of the deuident. And the figures 99 found and written a part, are called the quotient: shewing that 475967 d (the deuident giuen) doth cōtaine 4763 d (the deuider giuen) 99 times & 4430 d more: for that so much doth remaine vnstricken out, ouer the last placing of the deuider. If 984735 L be giuen to be deuided by 100 L consider and marke, that in placing the numbers giuen and working as is aforesaid: that at the last 00, the two first figures of the deuider, will come to be vnder 35, the two first figures of the deuident: and that the figures 9847 of the quotient, are like the figures in the last places of the deuident, the aforesaid 35 vnder which the aforesaid 00 of the deuider is come to be, being cut off, as here you may see the same in this example. Therefore it is apparant, that in these cases where the figure in the last place of the deuider is 1, and all the other figures of the same deuider (how many soeuer) 0, that if so many, of the figures in the first places of the deuidēt be seperated & cut off from the rest with a line, as there are

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  14
  419
  572
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475967(99
 47633
  476

 144
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  476

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 419(3
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11259(0
475967(99
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  476
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9847(35(9847
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nothings giuen and ioyned with the aforesaid 1 of the deuider, that then the figures on the left hand of the said line so seperating are the quotient: and the figures on the right hand of the same line, are the remainer,

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98475(35
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(as here you see in the example) for the two figures of the deuident in this manner being cut off, cause the other figures remaining of the deuident, to be abased by two places, and so signifie but the hundreth part of that they signified before, and 35 more in the whole which remaineth, therefore deuided or measured by 100 L giuen, and 9847 is the quotient, shewing that 984735 L doth containe 100 L, 9847 times and 35 L more. If 973400700 maruadis be giuen to be deuided by 100000 maruadis. For that the figure in the last place of the deuider is 1, and the other 5 figures all 0: therfore seperate and cut off (with a line) the 5 first figures (40070) of the deuident (as here you see it done in the example) and then the deuision, or measuring is made and finished. 973 being the quotient, and 40070 the remainer &c: if 237891 elles be giuen to be deuided by 9700 elles. Place the numbers giuen as if the 00 were not the figures of the deuider, yet for the causes aforesaid, place them vnder the two figures in the first places of the deuident, as here you see it done in the example: then say how many times 9 (the last figure of the deuider) in 23 (the number ouer the same) 2 times, and making examination as is aforesaid, you finde that you can haue so many times: therefore write it in the quotient, as here you see it done in the example.

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973(40070
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237891(
97 00
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But for the making of the deuision, we will now shew the other way mentioned in the said 5 instruction of my first booke: being some thing more briefe then the former, and is to be begun with the first figure of the deuider; saying 2 (the figure found in the quotient) times 7 (the first figure of the deuider) is 14 (striking out the said 7 of the deuider) 4 (of the said 14) out of 7 (the figure ouer the said 7 of the deuider) remaineth 3 (striking out the said 7 of the deuident) writing the said 3 ouer at (as here you see it done

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237891(2
97 00
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in

in the example) and keeping the 1 of the said 14 in minde, saying 2 (the figure found in the quotient) times 9 (the next figure of the deuider) is 18 (striking out the said 9 of the deuider) and 1 (of the aforesaid 14 produced of 2 times 7) which was kept in minde is 19, out of 23 (the number ouer the said 9 of the deuider) remaineth 4 (striking out the said 23) writing the said 4 ouer the said 23, as here you see it done in the example. Then remooue the deuider one figure further (as here you see it done in the example) saying, how many times 9 (the last figure of the deuider) in 43 (the number ouer the same 9 of the deuider) 4 times, and making examination as is aforesaid, you finde, that you can haue so many times. Therefore write it in the quotient by the figure there before found (as here you see it done in the example) saying 4 (the figure of the quotient last found) times 7 (the first figure of the deuider) is 28 (striking out the said 7 of the deuider) 8 (of the said 28) out of 8 (standing ouer the said 7 of the deuider) remaineth 0 (striking out the said 8 of the deuident) writing the same 0 ouer it (as here you see it done in the example) saying 4 (the figure last found of the quotient) times 9 (the next figure of the deuider) is 36 (striking out the said 9 of the deuider) and 2 (which you kept in minde of the said 28) is 38 out of 43 (the number ouer the said 9 of the deuider) remaineth 5 (striking out the said 43) writing the said 5 ouer it, as here you see it done in the example. Thus in this manner this deuision is made and finished, &c. If 31987400 reis be giuen to be deuided by 49000 reis. Place the numbers giuen as is aforesaid in the last example (as here you see them

```
   3
237891(2
 97 00
```

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  43
237891(2
 97 00
```

```
  43
237891(2
 97700
  9
```

```
  43
237891(24
 97700
  9
```

```
  430
237891(24
 97700
  9
```

```
   5
  430
237891(24
 97700
  9
```

placed in this example) ſaying, how many times 4 (the laſt figure of the deuider) in 31 (the number ouer the ſame) 6 times (for you can haue no more times after examination made) writing that 6 in the quotient (as here you ſee it done in the example) ſaying 6 (the figure found in the quotient) times 9 (the firſt figure of the deuider) is 54 (ſtriking out the 9 of the deuider) 4 (the firſt figure of the ſaid 54) out of 9 (the figure ouer the ſaid 9 of the deuider) remaneth 5 (ſtriking out the ſaid 9 of the deuidēt) writing the ſaid 5 ouer the ſame (as here you ſee it done in the example) ſaying 6 (the figure found of the quotient) times 4 (the next figure of the deuider) is 24 (ſtriking out the ſaid 4 of the deuider) and 5 which you kept in minde (of the aforeſaid 54) is 29 out of 31 (the number ouer the ſaid 4 of the deuider) remaineth 2 (ſtriking out the ſaid 31) writing the ſaid 2 ouer the 1 of the 31 (as heere you ſee it done in the example) remoouing the deuider one figure further (as here you ſee it done in the example) ſaying, how many times 4 (the laſt figure of the deuider) in 25 (the number o-ouer the ſaid 4 of the deuider) 5 times (for you can haue no more times after examination made as is aforeſaid) writing that 5 in the quotient (as here you ſee it done in the example) ſaying 5 (the laſt figure found of the quotient) times 9 (the firſt figure of the deuider) is 45 (ſtriking out the ſaid 9 of the deuider) 5 (of the ſaid 45) out of 8 (the figure ſtanding ouer the ſaid 9 of the deuider) remaineth 3 (ſtriking out the ſaid 8 of the deuident) writing the ſaid 3 ouer it (as here you ſee it

```
31987400(
 49   000
```

```
31987400(6
 49   000
```

```
  5
31987400(6
 49   000
```

```
 25
31987400(6
 49   000
```

```
 25
31987400(6
 499  000
  4
```

```
 25
31987400(65
 499  000
  4
```

```
 253
31987400(65
 499  000
  4
```

done

done in the example) ſaying 5 (the laſt figure found of the quotient) times 4 (the next figure of the deuider is 20 (ſtriking out the ſaid 4 of the deuider) and 4 which you kept in minde (of the aforeſaid 45) is 24 out of 25 (the number ſtanding ouer the ſaid 4 of the deuider) remaineth 1, (ſtriking out the ſaid 25) writing the ſaid 1 ouer the 5 of the 25 (as here you ſee it done in the examample) remoouing the deuider one figure further (as here you ſee it done in the example) ſaying, how many times 4 (the laſt figure of the deuider) in 13 (the number ouer the ſame) 2 times (for you can haue no more times after examination made as is aforeſaid) writing that 2 in the quotient (as here you ſee it done in the example) ſaying 2 (the figure laſt found of the quotient) times 9 (the firſt figure of the deuider) is 18 (ſtriking out the ſaid 9 of the deuider) 8 (of the ſaid 18) out of 7 (the figure ouer the ſaid 9 of the deuider) you cannot, but 8 out of 17 (borrowing one of the next figure) remaineth 9 (ſtriking out the ſaid 7 of the deuident) writing the the ſame 9 ouer the ſaid 7 (as here you ſee it done in the example) ſaying 2 (the figure laſt found of the quotlent) times 4 (the next figure of the deuider) is 8 (ſtriking out the ſaid 4 of the deuider) and 1 which you kept in minde (of the ſaid 18) is 9, out of 12 (the number 13 ouer the ſaid 4 of the deuider, ſo now

```
  1
 253
31987400(65
 499  000
  4
```

```
  1
 253
31987400(65
 4999000
  44
```

```
  1
 253
31987400(652
 4999000
  44
```

```
  1
 2539
31987400(652
 4999000
  44
```

```
  1
 2539
31987400(652
 4999000
  44
```

esteemed, for that you borrowed one from it) remaineth 3, (striking out the 1 of the said 13, and leauing the 3 vnstricken out) as here you see it done in the example. Thus in this maner this deuision or measuring is made and finished, &c. and in the like manner you may do all other.

The addition to the 6 Instruction of my first booke. Of fractions and their numeration.

IT is manifest and out of controuersie, that any one thing is not a multitude, or a many of the same things: and by the first definition of my first booke, one is that by which euery thing that is, is said one, and by the second definition of my first booke. Number is a multitude, or a many of vnits, or ones. Then hereby we may conclude, and that truly, that one is not a number, but the originall cause of naming and numbring all numbers; measuring all numbers, but measured of no number, and by the second and third definition of my first booke, it may be apparantly gathered, that one is a part of any number. Yet in our workings, by which we attaine vnto the quantitie vnknowne desired, for methode and breuitie sake, sometime we call and name abusiuely the vnit number, though in truth we know it to be no number, and that is done, in regard that it is the first thing that is named, or considered in numbring. By reason wherof, the name of the quantity of the thing or things, for breuitie sake, is abusiuely turned into the number of the quantitie of the thing or things: and the true meaning of the words and figures is committed vnto the spirit to vnderstand: And this is the rather borne withall and accepted for currant, because in our generall precepts of these aforesaid operations, we speake many times of quantities vnknowne, which by chaunce may be an vnit or a number. The rest, as in the said 6 instruction of my first booke.

Examples.

$\frac{1}{2}$ d signifieth the quantitie of one of those parts that are of one

one peny, the ſaid penny being parted in two equall parts, and is called one halfe-peny.

$\frac{1}{3}$ l ſignifieth the quantitie of one of thoſe parts of one pound: the ſaid pound being parted in 3 equall parts, and is called one third part pound.

$\frac{3}{4}$ elles ſignifieth the quantitie of 3 of thoſe parts that are of one elle, the ſaid elle being parted in 4 equall parts, and is called three fourth parts elles.

$3\frac{11}{12}$ oz: ſignifieth the quantitie of 3 oz: and the quantitie of 11 of thoſe parts that are of one oz: the ſaid oz: being parted in 12 equall parts, and is called 3 and eleuen twelue parts oz.

$9\frac{75}{103}$ L ſignifieth 9 L and the quantitie of 75 of thoſe parts that are of one L, the ſaid L being parted into 103 equall parts, and is called 9 and ſeuentie fiue one hundreth and three parts L. and ſo of all other.

The addition to the 7 Inſtruction of my firſt booke. Of the abreuiation of fractions.

Examples.

IF $\frac{16}{48}$ l be giuen to be abreuiated. Firſt according vnto the ſaid 7 inſtruction, deuide the denominator 48 by the numerator 16: the quotient is 3, and nothing remaineth. Therefore deuide 48 the denominator giuen, and 16 the numerator giuen, each apart by 16 the laſt deuider, the quotients are 3 and 1 (as here you ſee it done in the example.) Then place 1 the quotient of the numerator aboue a line, and 3 the quotient of the denominator vnder the ſame line thus $\frac{1}{3}$, and ſo this ſaid $\frac{1}{3}$ l is equall in value vnto $\frac{16}{48}$ l giuen, and is written with the leaſt numbers, that that value can be written with. If $\frac{24}{108}$ d be giuen to be abreuited. Deuide the denominator 108 by 24 the numerator, the remainer is 12: then deuide 24 the laſt deuider by 12 the remainer of the ſame deuiſion, and nothing remaineth. Therefore de-

48(3
16

16(1
16

12
108(4 24(2
24 12

1
108(9
12

uide 108 the denominator giuen, and 24 the numerator each apart by 12 the last deuider: the quotients are 9 and 2 (as here you see it in the example) then place the quotient of the numerator aboue a line, and the quotient of the denominator vnder the same line thus, $\frac{2}{9}$ d, which is equall in value vnto $\frac{24}{108}$ d giuen: & is written with the least numbers that that value can be writtē with. If $\frac{9784}{10788}$ elles, be giuen to be abreuiated, deuide 10788 the denominator giuen, by 9784 the numerator giuen, and the remainer is 1004. Then deuide 9784 the last deuider by 1004, the remainer of the same deuision; the remainer is 748. Then deuide 1004 the last deuider, by 748 the remainer of the same deuision: the remainer is 256. Then deuide 748 the last deuider, by 256 the remainer of the same deuision, the remainer is 236. Then deuide 256 the last deuider, by 236 the remainer of the same deuision, the remainer is 20. Then deuide 236 the last deuider by 20, the remainer of the same deuision, the remainer is 16. Then deuide 20 the last deuider by 16 the remainer of the same deuision, the remainer is 4. Then deuide 16 the last deuider, by 4 the remainer of the same deuision, and nothing remaineth. Therefore deuide 10788 the denominator giuen, and 9784 the numerator giuen, each apart by 4 the last deuider: the quotients are 2446 and 2697. Then place the quotient of the numerator aboue a line, and the quotient of the denominator vnder the same line, thus, $\frac{2446}{2697}$ elles, which is equall in

1004
10788(1
9784

48
9784(9
1004

256
1004(1
748

236
748(2
256

20
256(1
236

1
236(11
220

4
20(1
16

16(4 by this q/4 Deuid[illegible] the Num. & den. gi[illegible]
4

112
9784(2446 numerat[illegible]
4444

232
10788(2697 deno
4444

value

value vnto $\frac{9784}{10788}$ elles giuen, and is written with the least numbers that that value can be written with. If $\frac{277}{299}$ L be giuen to be abreuiated. Deuide the denominator 299 by 277 the numerator: remaineth 22. Then deuide 277 the last deuider by the said 22, remaineth 13. Then deuide 22 the last deuider by the said 13, remaineth 9. Then deuide 13 the last deuider by the said 9, remaineth 4. Then deuide 9 the last deuider by the said 4, remaineth 1. Therefore the value of the fraction giuen, cannot be written with any lesse numbers, then with those that it is giuen, &c. Yet it shall not be alwaies conuenient, to vse this aforesaid way of abreuiation: but in fractions, difficult and hard to be abreuiated. For if $\frac{16}{48}$ l be giuen to be abreuiated: prolong the line drawne betweene the numbers giuen, making a crosse line close by them, saying, the halfe of 16 is 8, writing that 8 aboue the line: saying the halfe of 48 is 24 in this order, the halfe of 4 (of the said 48) is 2, and the halfe of 8 (of the said 48) is 4, writing the 24 vnder the line: drawing an other crosse line, saying the half of 8 is 4, writing that 4 aboue the line, saying the halfe of 24 is 12, in this order. The halfe of 2 (of the said 24) is 1, and the halfe of 4 (of the said 24) is 2, writing that 12 vnder the line, drawing a crosse line close by them, saying the halfe of 4 is 2, writing that 2 aboue the line, saying the halfe of 12 is 6, writing that 6 vnder the line, drawing a crosse line close by them, saying, the halfe of 2 is 1, writing that 1 aboue the line, saying the halfe of 6 is 3, writing that 3 vnder the line (as here you see all done in the examples) and then because you can now take no more

22
299 (1
277
1
53
277 (12
222
2
9
22 (1
13
4
13 (1
9

1
9 (2
4

$\frac{16}{48}$

$\frac{16}{48}\,\frac{8}{}$

$\frac{16}{48}\,\frac{8}{2}$

$\frac{16}{48}\,\frac{8}{24}$

$\frac{16}{48}\,\frac{8}{24}\,4$

$\frac{16}{48}\,\frac{8}{24}\,\frac{4}{1}$

$\frac{16}{48}\,\frac{8}{24}\,\frac{4}{12}$

$\frac{16}{48}\,\frac{8}{24}\,\frac{4}{12}\,2$

$\frac{16}{48}\,\frac{8}{24}\,\frac{4}{12}\,\frac{2}{6}$

$\frac{16}{48}\,\frac{8}{24}\,\frac{4}{12}\,\frac{2}{6}\,1$

$\frac{16}{48}\,\frac{8}{24}\,\frac{4}{12}\,\frac{2}{6}\,\frac{1}{3}$

when one vnd the fract. cannot be abbreuiated

partes, the fraction giuen is in this manner abreuiated vnto $\frac{1}{3}$ l, And it is not the best and breefest way, to take such small parts as is aforesaid, but rather to say the fourth part of 16 is 4, writing that 4 aboue the line, saying also, the fourth part of 48 is 12: in this order. The fourth part of 4 (of the said 48) is 1, and the fourth part of 8 (of the said 48) is 2, writing that 12 vnder the line, saying the fourth part of 4 is 1: writing that 1 aboue the line, saying, the fourth part of 12 is 3, writing that 3 vnder the line. And so the fraction giuen, is also abreuiated vnto $\frac{1}{3}$ l, as here you see it done in the examples. And it is yet a better and breefer way to say, the sixteenth part of 16 is 1, writing that 1 aboue the line, saying also the sixteenth part of 48 is 3, writing that 3 vnder the line, as here you see it done in the example. If $\frac{24}{108}$ d be giuen to be abreuiated: say the fourth part of 24 is 6, writing that 6 aboue the line. Saying also the fourth part of 108 is 27, in this order. The fourth part of 10 (of the said 108) is 2, and 2 remaineth, which maketh the 8 (of the said 108) 28. The fourth part of that 28 is 7, writing the said 27 vnder the line, saying the third part of 6 is 2, writing that 2 aboue the line, saying also: the third part of 27 is 9, writing that 9 vnder the line. And in this maner the fraction giuen is abreuiated vnto $\frac{2}{9}$ d. But it is yet a better and breefer way, to say the twelfe part of 24 is 2, writing that 2 aboue the line: saying also the twelfe part of 108 is 9, writing that 9 vnder the line, as here you see all done in the examples. If $\frac{105}{147}$ oz. be giuen to be abreuiated. First take the third part of both the numbers giuen, and they

$\frac{16}{48}\Big|\frac{4}{}$

$\frac{16}{48}\Big|\frac{4}{1}$

$\frac{16}{48}\Big|\frac{4}{12}$

$\frac{16}{48}\Big|\frac{4}{12}\Big|\frac{1}{}$

$\frac{16}{48}\Big|\frac{4}{12}\Big|\frac{1}{3}$

$\frac{16}{48}\Big|\frac{1}{}$

$\frac{16}{48}\Big|\frac{1}{3}$

$\frac{24}{108}\Big|\frac{1}{}$

$\frac{24}{108}\Big|\frac{6}{2}$

$\frac{24}{108}\Big|\frac{6}{27}$

$\frac{24}{108}\Big|\frac{6}{28}\Big|\frac{2}{}$

$\frac{24}{108}\Big|\frac{6}{27}\Big|\frac{2}{9}$

$\frac{24}{108}\Big|\frac{2}{}$

$\frac{24}{108}\Big|\frac{2}{9}$

$\frac{105}{147}\Big|\frac{35}{49}$

$\frac{105}{147}\Big|\frac{35}{49}\Big|\frac{5}{7}$

and

are $\frac{15}{49}$. Then take the ſeauenth part of both thoſe numbers, and the fraction is abreuiated vnto $\frac{5}{7}$ oz: as here you ſee it done in the examples, &c.

The addition to the eight Inſtruction of my firſt booke. Of the reducing or bringing of many fractions giuen vnder one denomination.

Examples.

IF $\frac{1}{3}$ d and $\frac{1}{4}$ d, be giuen to be brought vnder one common denomination: multiply (according to the ſaid 8 inſtruction) 1 the numerator of the firſt fraction, by 4 the denominator of the other fraction, the product is 4: which 4 is the new found numerator vnto the firſt fraction giuen. Then multiply 1 the numerator of the other fraction, by 2 the denominator of the firſt fraction, the product is 2: which 2 is the new found numerator vnto the other fraction giuen. Then multiply 2 the denominator of the firſt fraction, by 4 the denominator of the other fraction, the product is 8: which 8 is the common denominator vnto both the aforeſaid new found numerators. So that $\frac{4}{8}$ d & $\frac{2}{8}$ d, in value is as much as $\frac{1}{3}$ d and $\frac{1}{4}$ d giuen: and are both reduced vnder one common denomination 8. If $\frac{1}{5}$ ſh $\frac{7}{8}$ l and $\frac{8}{9}$ elles be giuen to be reduced vnder one common denomination, multiply 5 the numerator of the firſt fraction, by 8 the denominator of the ſecond fraction, the product is 40: which multiply by 9 the denominator of the third fraction, the product is 360: which 360 is the new found numeration vnto the firſt fraction giuen. Then multiply 7 the numerator of the ſecond fraction, by 6 the denominator of the firſt fraction, the product is 42, which 42 multiply by 9 the denomina-

$\frac{1}{3}$ and $\frac{1}{4}$
4

$\frac{1}{3}$ and $\frac{1}{4}$
4 2

$\frac{1}{3}$ and $\frac{1}{4}$
$\frac{4}{8}$ $\frac{2}{8}$

$\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$
40
360

$\frac{1}{5}$. $\frac{7}{8}$ and $\frac{8}{9}$
40 42
360. 378

tor of the third fraction, the product is 378, which 378 is the new found numerator vnto the second fraction giuen. Then multiply 8 the numerator of the third fraction, by 8 the denominator of the second fraction, the product is 64, which 64 multiply by 6 the denominator of the first fraction, the product is 384: which 384 is the new found numerator vnto the third fraction giuen. Then multiply 6 the denominator of the first fraction, by 8 the denominator of the second fraction, the product is 48, which 48 multiply by 9 the denominator of the third fraction, the product is 432: which 432 is the common denominator, vnto all the aforesaid new found numerators. So that $\frac{360}{432}$ sh $\frac{378}{432}$ l, and $\frac{384}{432}$ elles, are equall in value to $\frac{5}{6}$ sh $\frac{7}{8}$ l and $\frac{8}{9}$ elles giuen: and are all reduced vnder one common denomiation 432. Yet it is not the best and briefest way to make so many multiplications as is aforesaid: but rather to consider the denominators of the fractions giuen, whether any of them be the part of other, or the part of the product of any two of them or more, multiplied together. For by that meanes the operation may be greatly abreuiated, in the manner following. If $\frac{1}{2}$ sh and $\frac{1}{4}$ oz: be giuen to be reduced vnder one common denomination. Here because 2 the denominator of the first fraction is a part of 4 the denominator of the other fraction. Therefore 4 is the common denominator vnto both the fractions giuen. Then say how many times 2 the denominator of the first fraction, in 4 the common denominator found, 2 times; which 2 multiply by 1 the numerator of the first fraction, the product is 2: which 2 is the new found numerator vnto the first fraction giuen. Then say how manie times 4 the denominator of the other fraction, in 4 the common denominator found, 1 time: which 1 multiply by 1 the numerator of the said fraction

$\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$

40 42 64

360.378.384

48. $\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$

40 42 64

$\frac{360}{432}$. $\frac{378}{432}$ and $\frac{384}{432}$

Better way

$\frac{1}{2}$ $\frac{1}{4}$

Because 2 is a pt of 4 go 4 is the com. denom. vnto both the fract.

how oft 2 in 4. 2/ this 2 mult by 1 the Nu of the 1 fra. produces 2. Num. of first fract.

Then say how oft 4 in 4, 1/ this 1 mult by 1 the Num. of the 1st frac. fant the Num. of the 2 fraction

sh oz

$\frac{1}{2}$ and $\frac{1}{4}$

2

$\frac{1}{2}$ and $\frac{1}{4}$

2 1

$\frac{1}{2}$ $\frac{1}{4}$ how oft 2 in 4; 2/ $\frac{2}{4}$ $\frac{1}{4}$

tion

tion, the product is 1: which is the new found numerator of the other fraction giuen. So that $\frac{1}{3}$ ſh, and $\frac{1}{4}$ oz: is equall in value to $\frac{1}{3}$ ſh, and $\frac{1}{4}$ oz: giuen, and are both reduced vnder one common denomination 4. If $\frac{5}{6}$ yards $\frac{7}{8}$ elles, and $\frac{8}{9}$ L be giuen to be reduced vnder one common denomination. Here becauſe 6 the denominator of the firſt fraction is the part of 72, the product of 8 times 9 the denominators of the other two fractions, therfore 72 is the common denominator found. Then ſay how manie times 6 the denominator of the firſt fraction, in 72 the common denominator found, 12 times: which 12 multiply by 5 the numerator of the firſt fraction, the product is 60, which 60 is the new found numerator vnto the firſt fraction giuen. Then ſay how many times 8 the denominator of the ſecond fraction in 72 the ſaid common denominator, 9 times: which 9 multiply by 7 the numerator of the ſecond fraction, the product is 63, which 63 is the new found numerator of the ſecond fraction giuen. Then ſay how many times 9 the denominator of the third fraction, in 72 the ſaid common denominator 8 times: which 8 multiply by 8 the numerator of the third fraction, the product is 64: which 64 is the new found numerator vnto the third fraction giuen. So that $\frac{40}{72}$ yardes $\frac{63}{72}$ elles and $\frac{64}{72}$ L are equall in value to $\frac{5}{6}$ yardes $\frac{7}{8}$ elles and $\frac{8}{9}$ L giuen: and are reduced vnder one common denomination 72. In like manner you may do all other.

$\frac{1}{3}$ and $\frac{1}{4}$	
$\frac{3}{4}$. $\frac{1}{4}$	
$\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$.	72
60	12
$\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$.	72
60 . 63	12
	9
$\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$:	72
60 . 63 . 64	12
	9
	8
$\frac{5}{6}$. $\frac{7}{8}$ and $\frac{8}{9}$	72
$\frac{40}{72}$. $\frac{63}{72}$ and $\frac{64}{72}$	12
	9
	8

121

The addition to the 9 Inſtruction of my firſt booke. Of addition in fractions.

Examples.

IF $\frac{1}{2}$ d and $\frac{1}{3}$ d be giuen to be added together, reduce them by the eight inſtruction of my firſt booke, vnder one common denomination, and they are $\frac{3}{6}$ and $\frac{2}{6}$, then adde 3 the numerator of the firſt fraction, vnto 2 the numerator of the other fraction, the aggregat is 5, which 5 deuide by 6, the common denominator, the quotient is $\frac{5}{6}$, therefore $\frac{5}{6}$ d is the aggregat of $\frac{1}{2}$ d and $\frac{1}{3}$ d giuen. If $\frac{5}{6}$ l and $\frac{7}{8}$ l, be giuen to be added together, reduce them as is aforeſaid, vnder one common denomination, and they are $\frac{40}{48}$ and $\frac{42}{48}$. The aggregat of their numerators is 82: which 82 deuide by 48 their common denominator, the quotient is $1\frac{17}{24}$: therefore $1\frac{17}{24}$ l, is the aggregat of of $\frac{5}{6}$ l, and $\frac{7}{8}$ l giuen. If $9\frac{1}{2}$ ſh, $8\frac{1}{4}$ ſh, $7\frac{1}{8}$ ſh, $6\frac{5}{6}$ ſh, and $5\frac{1}{3}$ ſh, be giuen to be added together, reduce the fractions giuen vnder one common denomination as is aforeſaid: and they are $\frac{16}{24}$ ſh $\frac{18}{24}$ ſh $\frac{3}{24}$ ſh $\frac{20}{24}$ ſh and $\frac{8}{24}$ ſh: the aggregat of their numerators is 65, which 65 deuide by 24 their commō denominator, the quotient is $2\frac{17}{24}$ ſh, which $2\frac{17}{24}$ ſh is the aggregat of all the fractions giuen, & this aggregat added vnto the whole numbers giuen, ioyned with the ſaid fractions, the aggregat is $37\frac{17}{24}$ ſh: therefore this aggregat is the aggregat of all the whole numbers and fractions giuen. If $9\frac{2}{3}$ L, $8\frac{4}{9}$ L, $9\frac{2}{3}$ L, $19\frac{3}{5}$ L, and $11\frac{1}{2}$ L, be giuen to be added together, reduce the fractions giuen vnder one common demon-

$\frac{1}{2}$ and $\frac{1}{3}$

3
2

facit $\frac{5}{6}$ d

$\frac{5}{6}$ and $\frac{7}{8}$

40
42

34
82($1\frac{17}{24}$
48

fac: $1\frac{17}{24}$ l

65

$9\frac{2}{3}$.	16	24
$8\frac{1}{4}$.	18	8
$7\frac{1}{8}$.	3	6
$6\frac{5}{6}$.	20	3
$5\frac{1}{3}$.	8	4
	17	8
	65	(2 $\frac{17}{24}$ ſh
	24	

fac: $37\frac{17}{24}$ ſh

denomination, and they are $\frac{36}{90}$ L, $\frac{40}{90}$ L, $\frac{60}{90}$ L, $\frac{54}{90}$ L, and $\frac{45}{90}$ L. The aggregat of their numerators is 235, which 235 deuide by 90 their common denominator, the quotient is $2\frac{11}{18}$ L, which $2\frac{11}{18}$ L is the aggregat of all the fractions giuen: and this aggregat added vnto all the whole numbers giuen, ioyned with them, their aggregat is $58\frac{11}{18}$ L. Therfore this aggregat is the aggregat of all the whole numbers and fractions giuen, and in like manner you may adde all other giuen.

		45
$9\frac{2}{5}$.	36	90
$8\frac{4}{9}$.	40	18
$9\frac{2}{3}$.	60	10
$19\frac{3}{5}$.	54	30
$11\frac{1}{2}$.	45	18
fac: $58\frac{11}{18}$ L	5	45

235 ($2\frac{11}{18}$ L or 90

$\frac{2}{5}$ $\frac{4}{9}$ $\frac{2}{3}$ $\frac{3}{5}$ $\frac{1}{2}$

2
10
3
54
5
270
2
540 by 6 of 90 Com
90 Com denomin.
51
10
2
36 1 Num.
90
9
10
4
40 2 Num.
90
3
30
2
60 3 Num.
90
5
18
3
54 4 N
90
2
45
1
45 5 Nu.

The addition to the 10 Instruction of my first booke. Of Substraction in fractions. 122

Examples.

IF $\frac{1}{2}$ d be giuen to be substracted from $\frac{2}{3}$ d, reduce them by the 8 instruction of my first booke, vnder one common denomination, and they are $\frac{3}{6}$ d and $\frac{4}{6}$ d. Then abate 3 the numerator of the fraction to be abated, from 4 the numerator of the fraction, from which it must be abated, the remainer is 1, which 1 is the numerator of the fraction which is the remainer, and 6 their common denominator, is the denominator: therefore $\frac{1}{6}$ d is the remainer, $\frac{1}{2}$ d being abated out of $\frac{2}{3}$ d giuen. If $2\frac{1}{13}$ l be giuen to be abated out of $7\frac{5}{6}$ l, reduce the fractions giuen vnder one common denomination as is aforesaid, and they are $\frac{6}{78}$ l and $\frac{65}{78}$ l. Then abate 6 the numerator of the fraction to be abated, from 65 the numerator of the fraction from which it must be abated, the remainer is 59, which 59 is the numerator of the fraction that is the remainer, and 78 their common denominator, is the denominator. Then abate

$\frac{1}{2}$ from $\frac{2}{3}$
4
3
fac: $\frac{1}{6}$ d

$2\frac{1}{13}$ from $7\frac{5}{6}$
65
6
facit $5\frac{59}{78}$ l.

alſo 2 l from 7 l, the remainer is 5 l. Therefore 5 $\frac{19}{72}$ l is the remainer 2 $\frac{1}{15}$ l being abated from 7 $\frac{1}{8}$ l giuen. If 9 $\frac{1}{2}$ elles be giuen to be abated from 13 $\frac{1}{12}$ elles, reduce the fractions giuen vnder one common denomination, and they are $\frac{6}{12}$ elles, and $\frac{1}{12}$ elles. Then forasmuch as $\frac{6}{12}$ elles the fraction to be abated is greater then $\frac{1}{12}$ elles the fraction from which it muſt be abated: borrow one elle of the 13 elles giuen, and reduce it in a fraction of the ſame denomination that the fractions giuen are reduced vnto, and it is $\frac{12}{12}$ elles. Then adde this $\frac{12}{12}$ elles vnto $\frac{1}{12}$ elles aforeſaid, the aggregat is $\frac{13}{12}$ elles, from which aggregat abate $\frac{6}{12}$ elles aforeſaid, remaineth $\frac{7}{12}$ elles. And then 9 elles abated from 12 elles (which was 13 elles giuen: before you borrowed one elle from it) remaineth 3. Therefore 3 $\frac{7}{12}$ elles is the remaineth 9 $\frac{1}{2}$ elles being abated from 13 $\frac{1}{12}$ elles giuen. If 3 $\frac{11}{15}$ L be giuen to be abated from 4 $\frac{1}{5}$ l, reduce the fractions giuen vnder one common denomination, and they are $\frac{55}{60}$ L and $\frac{12}{60}$ L. Then forasmuch as $\frac{55}{60}$ L the fraction to be abated is more then $\frac{12}{60}$ L, the fraction from which it muſt be abated: borrow 1 L of the 4 L giuen, reducing it into a fraction of the ſame denomination that the fractions giuen are reduced vnto: and it is $\frac{60}{60}$ L. Then adde this $\frac{60}{60}$ L vnto $\frac{12}{60}$ L aforeſaid, the aggregat is $\frac{72}{60}$ L, from which aggregat abate $\frac{55}{60}$ L aforeſaid, remaineth $\frac{17}{60}$ L, and then 3 L abated from 3 L (which was 4 L giuen: before you borrowed one from it) remaineth nothing. Therefore $\frac{17}{60}$ L is the remainer 3 $\frac{11}{15}$ L being abated from 4 $\frac{1}{5}$ L giuen. If 8 $\frac{11}{13}$ yardes be giuen to be abated from 13 $\frac{33}{39}$ yardes, reduce the fractions giuen vnder one common denomination: and they are $\frac{33}{39}$ yardes and $\frac{33}{39}$ yardes, which fractions being abated the one from the other, remaineth nothing. Then 8 yards being

$9\frac{1}{2}$ from $13\frac{1}{12}$

1
12
13
6
facit $3\frac{7}{12}$ elles

$3\frac{11}{15}$ from $4\frac{1}{5}$

12
60
72
55
facit $\frac{17}{60}$ L

$8\frac{11}{13}$ from $13\frac{33}{39}$

33
33
facit 5 yardes

being abated from 13 yardes giuen, remaineth 5 yardes. Therfore 5 yardes is the remainer $8\frac{11}{13}$ yardes being abated from 13 $\frac{11}{13}$ yardes giuen. Yet it is not the beſt and briefeſt way to follow the operations of ſome of the former workes: for if $\frac{7}{9}$ oz: be giuen to be abated from $1\frac{1}{7}$ oz: abate $\frac{7}{9}$ oz: from 1 oz: which is $\frac{7}{9}$ oz: remaineth $\frac{1}{9}$ oz: then adde that $\frac{1}{9}$ oz: vnto $\frac{1}{7}$ oz: the arggregat is $\frac{2}{9}$ oz: therefore that aggregat $\frac{2}{9}$ oz: is the remainer $\frac{7}{9}$ oz: being abated from $1\frac{1}{7}$ oz: giuen. If $3\frac{11}{13}$ L be giuen to be abated from $4\frac{1}{7}$ L. abate $3\frac{11}{13}$ L, from 4 L, which is $3\frac{12}{13}$ L, remaineth $\frac{1}{13}$ L, then adde that remainer vnto $\frac{1}{7}$ L, giuen the aggregat is $\frac{20}{91}$. Therefore $\frac{20}{91}$ L, is the remainer $3\frac{11}{13}$ L being abated from $4\frac{1}{7}$ L giuen. And in the like manner you may do all other ſubſtractions.

$\frac{7}{9}$ from $1\frac{1}{7}$

2

3

facit $\frac{2}{9}$ oz:

$3\frac{11}{13}$ from $4\frac{1}{7}$

5

12

facit $\frac{20}{91}$

The addition to the 11 inſtruction of my firſt booke. Of Multiplication in fractions.

123

Examples.

IF $\frac{2}{3}$ d be giuen to be multiplyed by $\frac{3}{4}$ L, according to the ſaid 11 inſtruction, multiply the numerators 2 and 3 giuen together, their product is 6, this 6 is the numerator found to the product: then multiply the denominators 3 and 4 giuen together, their product is 12: this 12 is the denominator found vnto the product. Therfore $\frac{6}{12}$ d or $\frac{6}{12}$ L, which being abreuiated by the 7 inſtruction of my firſt booke, is $\frac{1}{2}$ d or $\frac{1}{2}$ L, as ſhall be thought meeteſt to attaine to the purpoſe pretended, and is the product of $\frac{2}{3}$ d, and $\frac{3}{4}$ L giuen multiplied together. If $\frac{7}{8}$ ſh be giuen to be multiplied by 9 yardes. Multiply 7 the numerator of the fraction giuen, by 9 the whole number giuen, the product is 63, then deuide this 63 by 8 the denominator of the fraction giuen, the quotient is $7\frac{7}{8}$. Therefore $7\frac{7}{8}$ ſh or $7\frac{7}{8}$ yardes (as ſhall bee thought meeteſt to attaine to the purpoſe pretended) is the product

$\frac{2}{3}$ by $\frac{3}{4}$

$\frac{6}{12}$ $\frac{1}{2}$

facit $\frac{1}{2}$ d or $\frac{1}{2}$ L

$\frac{7}{8}$ by 9

63

facit $7\frac{7}{8}$ ſh, or $7\frac{7}{8}$ yardes

of $\frac{7}{8}$ ſh and 9 yards giuen, multiplied together. If $3\frac{11}{13}$ elles be giuen to be multiplied by 5 l. multiply $\frac{11}{13}$ elles giuen by 5 l giuen, as is before ſaid, the product is $4\frac{7}{13}$. Then multiply 3 elles giuen by 5 l giuen, the product is 15, and the aggregat of theſe two aforeſaid products is $19\frac{7}{13}$. Therefore $19\frac{7}{13}$ elles or $19\frac{7}{13}$ l (as ſhall be thought moſt conuenient to attaine vnto the purpoſe pretended) is the product of $3\frac{11}{13}$ elles and 5 l multiplied together.

$3\frac{11}{13}$ by 5

55

$4\frac{7}{13}$

15

facit: $19\frac{7}{13}$ elles or l

If $4\frac{3}{7}$ oz: be giuen to be multiplied by $3\frac{1}{2}$ d, multiplie each whole number giuen perticularly by the denominator of his fraction which is giuen ioyntly with each of them. And to each ſuch product, adde perticulerly the numerator of his aforeſaid ioyned fraction giuen. The ſaid particular aggregats, are 22 and 7, which multiply together, the product is 154. This 154 deuide by 10 the product of 5 and 2 the two denominators of the two fractions giuen, multiplied together. The quotient is $15\frac{4}{10}$: and abreuiated it is $15\frac{2}{5}$. Therefore $15\frac{2}{5}$ oz: or $15\frac{2}{5}$ d (as ſhall be thought moſt conuenient to attaine vnto the purpoſe pretended) is the product of $4\frac{3}{7}$ oz: and $3\frac{1}{2}$ d giuen multiplied together. Yet it is not the beſt and briefeſt way to follow ſome of the aforeſaid operations: for if $\frac{7}{8}$ ſh be giuen to be multiplied by 9 yardes. Conſider that $\frac{7}{8}$ doth want $\frac{1}{8}$ to make 1. Therefore abate alſo the $\frac{1}{8}$ of 9 giuen, which is $1\frac{1}{8}$ from the ſame 9. The remainer is $7\frac{7}{8}$ and ſo the product is found to be $7\frac{7}{8}$ ſh or $7\frac{7}{8}$ yardes, &c. as is aforeſaid. If $\frac{3}{4}$ d be giuen to be multiplied by $\frac{2}{3}$ L. Conſider that the $\frac{2}{3}$ of $\frac{1}{4}$ is $\frac{2}{12}$, which is $\frac{1}{2}$. Therefore $\frac{1}{2}$ d or $\frac{1}{2}$ L, is thus alſo found to be the product of $\frac{3}{4}$ d multiplied by $\frac{2}{3}$ L giuen. If $4\frac{3}{7}$ oz: be giuen to be multiplied by $3\frac{1}{2}$ d, ſay 3 times $4\frac{3}{7}$ is $12\frac{9}{7}$, that is $13\frac{2}{7}$, and the $\frac{1}{2}$ times of $4\frac{3}{7}$ is $2\frac{1}{7}$, which $2\frac{1}{7}$ added

$4\frac{3}{7}$ by $3\frac{1}{2}$

22

7

$15\frac{4}{10}\left|\frac{2}{5}\right.$

facit $15\frac{2}{5}$ oz: or d

$\frac{7}{8}$ by 9

$1\frac{1}{8}$

facit $7\frac{7}{8}$ ſh or yardes,

$\frac{3}{4}$ by $\frac{2}{3}$

$\frac{2}{12}\left|\frac{1}{2}\right.$

facit $\frac{1}{2}$ d or L

vnto

vnto 13 ½ before found, the aggregat is 15 ½. Therefore 15 ½ oz: or 15 ½ d, is thus also found to be their product as is aforesaid, and in like maner you may do all such other.

4 ½ by 3 ½

13 ½ .

2 ½

facit 15 ½ oz: or d.

The addition to the 12 Instruction of my first booke: Of deuision in fractions. Examples. 124

IF ⅔ d be giuen to be deuided by ½ d. according to the said 12 instruction, bring the fractions giuen by the 8 instruction of my first booke vnder one common denomination, and they are 4/6 and 3/6. Then deuide 4 the numerator of the deuident so reduced, by 3 the numerator of the deuider so reduced, the quotient is 1 ⅓. Therefore ½ the deuider giuen, is contained in ⅔ the deuident giuen 1 ⅓ times. If ½ d be giuen to be deuided by ⅔ d. Bring them vnder one common denomination, and they are 3/6 and 4/6. Then deuide 3 the numerator of the deuident giuen so reduced, by 4 the numerator of the deuider giuen so reduced, the quotient is this fraction ¾, because the deuider is greater then the deuident: therfore ⅔ d the deuider giuen is contained in ½ d the deuident giuen ¾ times. If 9 sh be giuen to be deuided by ⅔ sh. For your more perceuerāce, write the 9 giuen, in forme of a fraction, hauing 1 his denominator, for thereby his value is nothing altered, and they are 9/1 sh to be deuided by ⅔ sh. Then reduce them vnder one common denomination, and they are 27/3 and 2/3. Then deuide 45 the numerator of the deuident giuen so reduced, by 3 the numerator of the deuider giuen so reduced, the quotient is 15. Therefore ⅔ sh the deuider giuen, is contained in 9 sh the deuident giuen 15 times. If ⅔ sh be giuen to be deuided by 9

⅔ by ½

1

4 (1 ⅓

3

facit 1 ⅓ times

⅔ by ⅔

facit ¾ times.

9/1 by ⅔

1

45 (15

33

facit 15 times

ſh, write the 9 ſh giuen in forme of a fraction as is aforeſaid: and they are $\frac{9}{1}$ and $\frac{9}{1}$. Then reduce them vnder one common denomination, and they are $\frac{3}{5}$ and $\frac{45}{5}$. Then deuide 3 the numerator of the deuident ſo reduced, by 45 the numerator of the deuider giuen ſo reduced. The quotient for the cauſe aforeſaid is this fraction $\frac{3}{45}$, that is, being abreuiated $\frac{1}{15}$. Therefore 9 ſh the deuider giuen is contained in $\frac{3}{5}$ ſh, the deuident giuen $\frac{1}{15}$ times. If 1 $\frac{1}{4}$ l be giuen to be deuided by 7 l, reduce the deuider and the deuident giuen, in the forme of two fractions in this manner, multiply 1 the whole number of the deuident giuen, by 4 the denominator of the fraction ioyned with it, the product is 4, to this 4 adde 3 the numerator of the ſaid fraction, the aggregat is 7, this 7 is numerator, and 4 the denominator of the ſaid fraction, is denominator, ſo that they are $\frac{7}{4}$ and $\frac{7}{1}$. Then reduce them vnder one common denomination, and they are $\frac{7}{4}$ and $\frac{28}{4}$. Then deuide 7 the numerator of the deuident giuen ſo reduced, by 28 the numerator of the deuider ſo reduced, the quotient is $\frac{7}{28}$, that is $\frac{1}{4}$ being abreuiated. Therefore 7 l the deuider giuen is contained in 1 $\frac{1}{4}$ l the deuident giuen $\frac{1}{4}$ times. If 7 l be giuen to be deuided by 1 $\frac{1}{4}$ l, reduce the deuident and the deuider giuen in forme of two fractions as is aforeſaid, and they are $\frac{7}{1}$ and $\frac{7}{4}$. Then reduce them vnder one common denomination, and they are $\frac{28}{4}$ and $\frac{7}{4}$. Then deuide 28 the numerator of the deuident ſo reduced, by 7 the numerator of the deuider ſo reduced, the quotient is 4. Therefore 1 $\frac{1}{4}$ l the deuider giuen is contained in 7 l the deuident giuen 4 times. If $\frac{2}{3}$ L be giuen to be deuided by 1 $\frac{1}{2}$ L, reduce them as is aforeſaid in forme of fractions, thus $\frac{2}{3}$ and $\frac{3}{2}$. Then reduce them vnder one common denomination, and they are $\frac{4}{6}$ and $\frac{9}{6}$, then deuide 4 the numerator of the deuident giuen ſo reduced, by 9 the numerator of the

$\frac{1}{5}$ by $\frac{9}{1}$

$\frac{3}{45}\left|\frac{1}{15}\right.$

facit $\frac{1}{15}$ times

1 $\frac{1}{4}$ by 7

$\frac{7}{28}\left|\frac{1}{4}\right.$

facit $\frac{1}{4}$ times.

7 by 1 $\frac{1}{4}$

28(4
7

facit 4 times.

$\frac{2}{3}$ by 1 $\frac{1}{2}$

3

facit $\frac{2}{3}$ times.

deuider

deuider giuen ſo reduced: the quotient is $\frac{1}{5}$. Therefore $1\frac{1}{2}$ L the deuider giuen is contained in $\frac{1}{1}$ L the deuident giuen $\frac{4}{5}$ times. If $1\frac{1}{2}$ L be giuen to be deuided by $\frac{2}{3}$ L, write them as is aforeſaid, thus $\frac{3}{2}$ and $\frac{2}{3}$. Then reduce them vnder one common denomination, and they are $\frac{9}{6}$ and $\frac{4}{6}$. Then deuide 9 the numerator of the deuident giuen ſo reduced, by 4 the numerator of the deuider giuen ſo reduced. The quotient is 2 $\frac{1}{4}$: therefore $\frac{2}{3}$ L the deuider giuen is contained in $1\frac{1}{2}$ L the deuident giuen $2\frac{1}{4}$ times. If $2\frac{1}{4}$ elles be giuen to be deuided by $7\frac{2}{7}$ elles, reduce them as is aforeſaid in the forme of two fractions, and they are $\frac{11}{4}$ and $\frac{51}{7}$. Then reduce them vnder one common denomination, and they are $\frac{77}{28}$ and $\frac{148}{28}$, then deuide 55 the numerator of the deuident giuen ſo reduced, by 148 the numerator of the deuider giuen ſo reduced, the quotient is $\frac{55}{148}$. Therfore $7\frac{2}{7}$ elles the deuider giuen, is contained in $2\frac{1}{4}$ elles the deuident giuen $\frac{55}{148}$ times. If $7\frac{2}{7}$ elles, be giuen to be deuided by $2\frac{1}{4}$ elles. Reduce them as is aforeſaid in the forme of two fractions, and they are $\frac{51}{7}$ and $\frac{11}{4}$: then reduce them vnder one common denomination, and they are $\frac{148}{28}$ and $\frac{55}{28}$. Then deuide 148 the numerator of the deuident giuen ſo reduced by 55 the numerator of the deuider giuen ſo reduced, the quotient is $2\frac{38}{55}$. Therefore $2\frac{1}{4}$ elles the deuider giuen is contained in $7\frac{2}{7}$ elles the deuident giuen $2\frac{38}{55}$ times. Yet it is not the beſt and the briefeſt way to follow ſome of the aforeſaid operations, for if $\frac{2}{3}$ d be giuen to be deuided by $\frac{1}{3}$ d. Conſider that $\frac{1}{3}$ d the deuider giuen is 2 times contained in 1 d, thē multiply $\frac{2}{3}$ the deuident giuen, by the aforeſaid 2, the product is $1\frac{1}{3}$. Therefore $\frac{1}{3}$ d the deuider giuen is contained in $\frac{1}{3}$ d, the deuident gi-

$1\frac{1}{2}$ by $\frac{2}{3}$

3 1

9(2 $\frac{1}{4}$

4

facit $2\frac{1}{4}$ times.

$2\frac{1}{4}$ by $7\frac{2}{7}$

11 37

facit $\frac{55}{148}$ times.

$7\frac{2}{7}$ by $2\frac{1}{4}$

37 11

3

148(2 $\frac{38}{55}$

55

facit $2\frac{38}{55}$ times.

uen the aforeſaid $1\frac{1}{3}$ times. If 9 ſh be giuen to be deuided by $\frac{3}{7}$ ſh. deuide 9 the deuident giuen, by 3 the numerator of the deuider giuen, the quotient is 3, and then multiply this 3 by 5 the denominator of the deuider giuen, the product is 15. Therfore $\frac{3}{7}$ ſh is contained in 9 ſh the ſaid 15 times. If $\frac{3}{7}$ ſh be giuen to be deuided by 9 ſh. Deuide 3 the numerator of the deuident giuen, by 9 the deuider giuen, the quotient is $\frac{1}{3}$, this $\frac{1}{3}$ deuide by 5 the denominator of the deuident giuen, the quotient is $\frac{1}{15}$. Therefore 9 ſh the deuider giuen, is contained in $\frac{3}{7}$ ſh the deuident giuen $\frac{1}{15}$ times, and in like manner you may do all other.

$\frac{3}{7}$ by $\frac{3}{5}$

facit $1\frac{1}{3}$ times

9 by $\frac{3}{5}$

3

facit 15 times

$\frac{3}{7}$ by 9

$\frac{1}{3}$

facit $\frac{1}{15}$ times

p 126

The addition to the 13 *Inſtruction of my firſt booke. Of the varietie of reaſons.*

THe quantitie compared, is called the antecedent, and the quantitie vnto which the compariſon is made, is called the conſequent: ſo that the reaſon of equalitie is as 3 d compared vnto 3 d, or 7 L vnto 7 L, or $2\frac{1}{4}$ elles vnto $2\frac{1}{4}$ elles, or $5\frac{1}{8}$ oz: vnto $5\frac{1}{8}$ oz: &c. infinitly. And the reaſon of the greater inequalitie, is as 3 ſh compared vnto 2 ſh, or 5 l vnto 3 l, or 5 d vnto 2 d, or 8 kr: vnto 3 kr: or 4 oz: vnto 2 oz: or 9 L vnto 3 L, or 4 flo: vnto 1 flo: or $2\frac{1}{2}$ d vnto 1 $\frac{1}{4}$ d, or $6\frac{1}{2}$ oz: vnto $4\frac{1}{3}$ oz, &c. infinitly. Then laſtly the reaſon of the leſſer inequalitie, is as 2 ſh compared vnto 3 ſh, or 3 l vnto 5 l, or 2 d vnto 5 d, or 3 kr: vnto 8 kr: or 2 oz: vnto 4 oz: or 3 L vnto 9 L, or 1 flo: vnto 4 flo: or $1\frac{1}{4}$ d vnto $2\frac{1}{2}$ d, or $4\frac{1}{3}$ oz: vnto $6\frac{1}{2}$ oz: &c. infinitly. Yet noting that if the quantities compared together be not of one kinde, or reduceable to one kinde by ſome knowne means (as we haue manifeſted and ſhewed in the addition, vpon the declaration of the 3 definition of my firſt booke) then there is no reaſon knowne betweene them, being ſo compared together, &c.

The

The addition to the 14 Inſtruction of my firſt booke. Of the expreſſing and naming the reaſon which two quantities of one kinde haue, being applied to number, and ſo compared together.

Examples.

IF 3 d compared vnto 3 d, be the two quantities giuen, which are to haue their reaſon found, named and expreſſed. Deuide 3 d the antecedent giuen, by 3 d the conſequent giuen, the quotient is 1. Therfore the quantities 3 d and 3 d giuen are equall, and ſo their reaſon is found to be named one time, and therfore called equalitie. If 7 L compared vnto 7 L be giuen: they are alſo in the reaſon of equalitie: becauſe that the quotient is 1, when 7 L the antecedent giuen, is deuided by 7 L the conſequent giuen, &c. infinitely. If 3 l compared vnto 2 l be the quantities giuen that are to haue their reaſon found, named and expreſſed. Deuide 3 l the antecedent, by 2 l the conſequent, the quotient is $1\frac{1}{2}$. Therefore their reaſon is found to be named $1\frac{1}{2}$ times. If 5 oz: compared vnto 3 oz: be giuen, deuide 5 oz: the antecedent, by 3 oz: the conſequent, the quotient is $1\frac{1}{3}$. Therfore their reaſon is called $1\frac{1}{3}$ times. If 7 ſh compared vnto 3 ſh be giuen: deuide 7 ſh the antecedent, by 3 ſh the conſequent, the quotient is $2\frac{1}{3}$. Therefore their reaſon is expreſſed to be $2\frac{1}{3}$ times. If 15 C compared vnto 4 C be giuen: deuide 15 C the antecedent, by 4 C the conſequent, the quotient is $3\frac{3}{4}$. Therefore their reaſon is ſaid to be $3\frac{3}{4}$ times. If $6\frac{1}{2}$ elles compared vnto $1\frac{1}{2}$ elles be giuen: deuide $6\frac{1}{2}$ elles the antecedent, by $1\frac{1}{2}$ elles the conſequent, the quotient is $4\frac{1}{3}$. Therefore their reaſon is expreſſed to be $4\frac{1}{3}$ times. If $7\frac{1}{4}$ yardes compared vnto $1\frac{1}{4}$ yardes be giuen. Deuide $7\frac{1}{4}$ yardes the antecedent, by $1\frac{1}{4}$ yardes the conſequent, the quotient is $4\frac{1}{7}$. Therefore their reaſon is $4\frac{1}{7}$ times, &c. infinitly. If 2 d compared vnto 1 d be giuen, deuide 2 d the antecedent, by 1 d the conſequent, the quotient is 2: therefore their reaſon is 2 times. If 6 ſh compared vnto 2 ſh be giuen, deuide 6 ſh the antecedent, by 2 ſh the conſequent, the quotient is 3. Therefore their reaſon is 3 times. If 12 l

compared vnto 3 l be giuen: deuide 12 l the antecedent by 3 l the conſequent, the quotient is 4. Therefore their reaſon is 4 times. If 7 men compared vnto 1 man be giuen, deuide 7 men the antecedent, by 1 man the conſequent, the quotient is 7. Therefore their reaſon is 7 times &c: infinitly. And the operation to finde, name, or expreſſe, the reaſon of quantities giuen, compared in the leſſer inequalitie, is one and the ſame of the aforeſaid greater inequalitie: onely excepted, that here the conſequent muſt be taken in place where the antecedent was taken there: and the antecedent in place of the conſequent, with this word ſub placed before the quotient of the deuiſion: as if 2 d compared vnto 3 d be giuē. Deuide 3 d the conſequent, by 2 d the antecedent, the quotient is 1 ½. Therefore their reaſon is ſub 1 ½ times. If 3 ſh compared vnto 5 ſh be giuen, deuide 5 ſh the conſequent, by 3 ſh the antecedent, the quotient is 1 ⅔. Therefore their reaſon is ſub 1 ⅔ times. If 3 l compared vnto 7 l be giuen, deuide 7 l the conſequent, by 3 l the antecedent, the quotient is 2 ⅓. Therefore their reaſon is ſub 2 ⅓ times. If 4 elles compared vnto 15 elles be giuen, deuide 15 elles the conſequent, by 4 elles the antecedent, the quotient is 3 ¾. Therefore their reaſon is ſub 3 ¾ times. &c: infinitely. If 1 L compared vnto 2 L be giuen, deuide 2 L the conſequent, by 1 L the antecedent, the quotient is 2. Therefore their reaſon is ſub 2 times. If 2 Oxen compared vnto 6 Oxen be giuen, deuide 6 Oxen the conſequent, by 2 Oxen the antecedent, the quotient is 3. Therefore their reaſon is ſub 3 times. If 3 horſes compared vnto 12 horſes be giuen, deuide 12 horſes the conſequent, by 3 horſes the antecedent, the quotient is 4. Therfore their reaſon is ſub 4 times. If 1 voice compared vnto 7 voices be giuen. Deuide 7 voices the conſequent, by 1 voice the antecedent, the quotient is 7. Therefore their reaſon is ſub 7 times. &c: infinitely. And now we muſt inforce our ſelues to haue greater inſight in things, and ſo to ſpeculate of the paſſions and effects of them, for thereby it is apparent: if 4 d compared vnto 8 d, and 12 d, compared vnto 24 d, be 4 proportionall numbers giuen: that then as the reaſon betweene the firſt and the ſecond, which is ſub 2 times, is one and

the

the ſame, that is betweene the third and the fourth, which is alſo ſub 2 times: ſo the reaſon betweene the firſt and the third, which is ſub 3 times, is one and the ſame, that is betweene the ſecond and the fourth, which is alſo ſub 3 times, and the like of any other. Againe it is manifeſt, that the ſame reaſon, which is betweene any two quantities firſt giuen, the ſame reaſon is betweene the part or parts of the ſame antecedent ſo giuen, and the like part or parts of the ſame conſequent ſo giuen. Alſo betweene the ſuch a times of the ſame antecedent ſo giuen, and the like ſuch a times of the ſame conſequent ſo giuen. As if 16 ſh compared vnto 12 ſh be giuen, then their reaſon is $1\frac{1}{3}$ times. So the halfe of 16 ſh the antecedent is 8 ſh, which 8 ſh compared vnto 6 ſh, which is the ſame part of the conſequent that 8 ſh is of the antecedent: therefore their reaſon is alſo $1\frac{1}{3}$ times. More the $\frac{1}{4}$ of 16 ſh the antecedent, is 12 ſh, which 12 ſh compared vnto 9 ſh which is the ſame parts of the conſequent, that 12 ſh is of the antecedent, therefore their reaſon is alſo $1\frac{1}{3}$ times More the $\frac{1}{12}$ of 16 ſh is 16 d, which 16 d compared vnto 12 d, which is the ſame part of the conſequent that 16 d is of the antecedent: therefore their reaſon is alſo $1\frac{1}{3}$ times, &c: infinitely what part or parts ſoeuer. Againe if 12 d compared vnto 8 d be giuen, then their reaſon is $1\frac{1}{2}$ times. So the 2 times of 12 d the antecedent is 24 d, which 24 d compared vnto 16 d, which is the ſame many times of the conſequent, that 24 d is of the antecedent: therefore their reaſon is alſo $1\frac{1}{2}$ times. More the $3\frac{1}{3}$ times of 12 d the antecedent, is 3 ſh 4 d, which 3 ſh 4 d compared vnto 2 ſh $2\frac{2}{3}$ d, which is the ſame many times of the conſequent, that 3 ſh 4 d is of the antecedent: therefore their reaſon is alſo $1\frac{1}{3}$ times. More the 240 times of 12 d the antedent is 12 l, which 12 l, compared vnto 8 l, which is the ſame many times of the conſequent, that 12 l is of the antecedent: therefore their reaſon is alſo $1\frac{1}{2}$ times &c: infinitely what many times ſoeuer. And beſide it is manifeſt that we may leaue the name of the things, and ſo for a time conſider onely their numbers or multitudes, the better to attaine to the purpoſe pretended, &c.

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The addition to the 15 Inſtruction of my firſt booke. To finde a fourth number proportionall vnto three numbers giuen: that is vnto the which one number giuen compared, ſhall haue like reaſon that two numbers giuen of one kinde haue, compared together.

Examples.

Que: 1. IF 8 d compared vnto 8 d, be two numbers giuen, and 7 elles be a third number giuen, vnto the which ſaid 3 numbers giuen, it is required to finde a fourth number proportionall: that is, that 7 elles giuen, ſhall haue the ſame reaſon compared vnto it, that 8 d giuen hath compared vnto 8 d giuen. Place the 3 numbers giuen in order (according to the ſaid 15 inſtruction) with two prickes betweene each two numbers, thus 8 . . 8 . . 7. Then conſidering diligently the reaſon that is betweene 8 d and 8 d, the two numbers giuen, compared together, we finde that their reaſon is in equalitie. And therefore we ſay, that 7 elles is the number deſired. For 7 elles giuen, compared vnto 7 elles thus found, are alſo in the reaſon of equalitie, and ſo proportionals, as is required.

Que: 2. If 7 ſh compared vnto 7 ſh be two numbers giuen, and 11 oz: be a third number giuen, vnto the which ſaid 3 numbers giuen, it is required to finde a fourth number proportionall. Place the three numbers giuen in order as is aforeſaid, thus 7 . . 7 . . 11. Then conſidering as is aforeſaid, we finde 7 ſh giuen to be equall vnto 7 ſh giuen, therefore we anſwere, that the number required to be found, is alſo equall vnto 11 oz: the third number giuen.

Que: 3. If 6 ſh 5 d, compared vnto 6 ſh 5 d, be two numbers giuen, and 13 $\frac{1}{2}$ yardes be a third number giuen: and that vnto theſe ſaid three numbers giuen, it is required to finde a fourth number proportionall. Place the three numbers giuen in order as is aforeſaid, thus 6 . 5 . . 6 . 5 . . 13 $\frac{1}{2}$. Then conſidering as is aforeſaid, we finde 6 ſh 5 d giuen, to be

equall

equall vnto 6 sh 5 d giuen, and therefore we say that the number to be found is also equall vnto 13 $\frac{1}{2}$ yardes the third number giuen. And in like manner you may finde any other fourth number proportionall required, when the two numbers giuen compared are equall, and in the reason of equalitie.

Que. 4. If 8 d compared vnto 6 d be two numbers giuen, and 12 L be a third number giuen, and that vnto these three numbers, it is required to finde a fourth number proportionall, Place the three numbers giuen as is aforesaid, thus 8 . . 6 . . 12. Then considering the reason betweene 8 d and 6 d giuen, we finde that it is the reason of the greater inequalitie.

1. Therefore (according to the aforesaid 15 instruction) deuide 6 d the consequent giuen, by 8 d the antecedent giuen, the quotient is $\frac{6}{8}$, that is $\frac{3}{4}$. Then multiply the said $\frac{3}{4}$ by 12 L the third number giuen, the product is 9. Therefore 9 L is the number required.

8 . . 6 . . 12
$\frac{6}{8}$ | $\frac{3}{4}$ 3 6 (9
4
facit 9 L. 1

2. Or deuide 8 d the antecedent giuen, by 6 d the consequent giuen, the quotient is 1 $\frac{1}{3}$. Then deuide 12 L the third number giuen, by the said 1 $\frac{1}{3}$, the quotient is 9. Therefore 9 L is the number required.

8 . . 6 . . 12
1 $\frac{1}{3}$ 3
facit 9 L. 2

3. Or deuide 12 the third number giuen, by 8 the antecedent giuen, the the quotient is 1 $\frac{1}{2}$, and by this 1 $\frac{1}{2}$ multiply 6 the consequent giuen, the product is 9: therefore 9 L is the number required.

8 . . 6 . . 12
3 1 $\frac{1}{2}$
facit 9 L. 3

4. Or multiply 12 the third number giuen, by 6 the consequent giuen, the product is 72. Then deuide this 72, by 8 the antecedent giuen, the quotient is 9: therefore 9 L is the number required.

8 . . 6 . . 12
6
72
facit 9 L 4

5. Or take the $\frac{3}{4}$ of 8 the first number in the order is 6, and the $\frac{3}{4}$ of 12, the third number in the order is 9. And then

8 . . 6 . . 12
6 *facit* 9 L 5

the numbers 8. . 6 . . 12 giuen, be written thus 6 . . 6 . . 9, and by that meanes, the first and second numbers in the order are brought in the reason of equalitie, as you see: therefore 9 L is the number required.

6 Or the 1 ½ times of 8 the first number in the order is 12, and the 1 ½ times of 6 the second number in the order, is 9. Then the numbers 8 . . 6 . . 12 giuen, be written thus 12 . . 9 . . 12, and by that meanes, the first and third numbers in the order are brought in the reason of equalitie, as you see. Therefore 9 L is the number required. And in like manner you may finde any fourth number proportionall required, when the two numbers giuen compared are in the reason of the greater inequalitie.

8 . . 6 . . 12
12 9
facit 9 L 6.

Que: 5. If 6 L compared vnto 8 L, be two numbers giuen, and 12 d be a third number giuen: and that vnto these said three numbers, it is required to finde a fourth number proportionall. Place the three numbers giuen, as is aforesaid, thus: 6 . . 8 . . 12. Then considering the reason betweene 6 L and 8 L giuen, we finde that it is the reason of the lesser inequalitie.

1. Therefore (according to the aforesaid 15 instruction) deuide 8 the consequent giuen, by 6 the antecedent giuen, the quotient is 1 ⅓: by this 1 ⅓ multiply 12 the third number giuen, the product is 16: therefore 16 d is the number required.

6 . . 8 . . 12
1 ⅓ 4
facit 16 d 1

2. Or deuide 12 the third number giuen, by 6 the antecedent giuen, the quotient is 2, by this 2 multiply 8 the consequent giuen, the product is 16. Therefore 16 d is the number required,

6 . . 8 . . 12
2
facit 16 d

3. Or multiply 12 the third number giuen, by 8 the consequent giuen, the product is 96, this 96 deuide by 6 the antecedent giuen, the quotient is 16. therefore 16 d is the number desired.

6 . . 8 . . 12
8
96
facit 16 d 2

4. Or

4. Or deuide 6 the antecedent giuen, by 8 the conſequent giuen, the quotient is $\frac{1}{4}$, by this $\frac{1}{4}$ deuide 12 the third number giuen, the quotient is 16. Therefore 16 d is the number deſired.

6 . . 8 . . 12
$\frac{1}{4}$ 4
facit 16 d

5. Or the 2 times of 6 the antecedent giuen is 12, and the 2 times of 8 the conſequent giuen, is 16. So that then the numbers 6 . . 8 . . 12 giuen, ſtand thus 12 . . 16 . . 12 by which meanes, the firſt and third numbers in the order, are brought in the reaſon of equalitie. Therefore 16 d is the number deſired.

6 . . 8 . . 12
12 16
facit 16 d

6. Or the $1\frac{1}{3}$ times of 6 the antecedent giuen, is 8, and the $1\frac{1}{2}$ times of 12 the third number giuen, is 16: ſo that then the numbers 6 . . 8 . . 12 giuen, ſtand thus, 8 . . 8 . . 16, by which meanes, the firſt and ſecond numbers in the order, are brought in the reaſon of equalitie: therfore 16 d is the number deſired. And in like manner you may finde any fourth number proportionall, when the two numbers giuen compared, are in the reaſon of the leſſer inequalitie. Yet aſwell the better to helpe learners forward in this art: as in part to diſcouer the ignorance and negligence of them, that ſay (to the diſcouragement and hinderance of ſome yong learners) that I haue not ſhewed in my ſecond booke, the way how my queſtions propounded in the ſame, are to be anſwered, which report to be vntrue, we will thus make manifeſt. Of the 61 queſtions, firſt propounded in my ſaid 2 booke, I ſuppoſe that they do not ſpeake, for that they are capable to conceiue their operations.

6 . . 8 . . 12
8 4
facit 16 d

Que:6. Then the anſwer of the 62 queſtion doth import, as by the ſame appeareth: that it is required, to find by the order of the 15 inſtructions of my firſt booke, a fourth number proportionall vnto three numbers there giuen, which are 1 yard compared vnto 13 yardes, and 7 d is there the third number giuen. Now I demaund if this inſtruction doth not teach to write the nũbers giuen in order thus 1 . . 13 . . 7: againe, if this inſtructiõ

doth not teach to finde the number demaunded sixe seuerall maner of waies to say. First to deuide 13 by 1, the quotient is 13, and by this 13 to multiply 7, the product is 91, and that therfore 91 d is the number demaunded.

1 . . 13 . . 7
13
facit 91 d. 1

2. Secondly to deuide 1 by 13, the quotient is $\frac{1}{13}$, and by this $\frac{1}{13}$ to deuide 7, the quotient is 91, and that therefore 91 d is the number demaunded.

1 . . 13 . . 7
$\frac{1}{13}$ facit 91 d 2

3. Thirdly, to deuide 7 by 1 the quotient is 7, and by this 7 to multiply 13, the product is 91, and that therefore 91 d is the number demaunded.

1 . . 13 . . 7
7
facit 91 d 3

4. Fourthly, to multiply 13 by 7, the product is 91, and to deuide this 91 by 1, the quotient is 91, and that therfore 91 d is the number desired.

1 . . 13 . . 7
facit 91 d. 4

5. Fiftly, that the 7 times of 1 is 7, and the 7 times of 13 is 91: then the numbers 1 . . 13 . . 7 giuen, stand thus 7 . . 91 . . 7 by which meanes, the first and third numbers in the order are brought in the reason of equalitie, and that therefore 91 d is the number desired.

1 . . 13 . . 7
7 91
facit 91 d 5

6. Sixtly, that the 13 times of 1 is 13, and the 13 times of 7 is 91, by which operations the numbers 1 . . 13 . . 7 giuen stand thus, 13 . . 13 . . 91, by which meanes, the first and second numbers in the order are brought in the reason of equalitie: and that therefore 91 d is the number demaunded.

1 . . 13 . . 7
13 facit 91 d 6.

Que: 7. And I do demaund if this aforesaid answer doth not serue for the answer of the next following questions, vntill the 72 question: where the answer of that question doth import, as by the same appeareth, that it is required to finde by the order of this instruction, a fourth number proportionall vnto the 3 numbers there giuen, which numbers are 8 d compared vnto 15 sh, and 1 yarde is there the third number giuen. And so by this

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this instruction the said numbers stand thus 8 . . 15 . . 1, but by the sixt definition of my first booke, the quantities compared 8 d and 15 sh must be of one kinde, and by the declaration of the third definition of my first booke it is shewed that 8 d and 15 sh are reputed to be of one kinde. Then by the answer of the first question of my second booke, it is shewed how to bring them to be of one kinde. So reduced the numbers are 8 d compared vnto 180 d, and then they stand thus 8 . . 180 . . 1 whose fourth number proportionall, is found by this instruction the sixe seuerall maner of waies aforesaid, to say.

1. First deuide 180 by 8, the quotient is $22\frac{1}{2}$, which $22\frac{1}{2}$ multiply by 1, the product is $22\frac{1}{2}$. Therefore $22\frac{1}{2}$ yardes is number desired.

2. Secondly, deuide 8 by 180, the quotient is $\frac{2}{45}$, by this $\frac{2}{45}$ deuide 1, the quotient is $22\frac{1}{2}$: therefore $22\frac{1}{2}$ yardes, is the number desired.

3. Thirdly, deuide 1 by 8, the quotient is $\frac{1}{8}$, by this $\frac{1}{8}$ multiply 180, the product is $22\frac{1}{2}$. Therefore $22\frac{1}{2}$ yardes is the number desired.

4. Fourthly, multiply 180 by 1, the product is 180, this 180 deuide by 8 the quotient is $22\frac{1}{2}$. Therefore $22\frac{1}{2}$ yardes is the number desired.

5. Fiftly, the $\frac{1}{8}$ of 8 is 1, and the $\frac{1}{8}$ of 180 is $22\frac{1}{2}$. Then the numbers 8 . . 180 . . 1 giuen, stand thus 1 . . $22\frac{1}{2}$ . . 1 by which meanes, the first and third number in the order, are brought in the reason of equalitie. Therefore $22\frac{1}{2}$ yardes is the number desired.

6. Sixtly, the $22\frac{1}{2}$ times of 8 is 180, and the $22\frac{1}{2}$ times of 1 is $22\frac{1}{2}$. Then the numbers 8 . . 180 . . 1 giuen stand thus, 180 . . 180 . . $22\frac{1}{2}$ by which meanes

8 . . 180 . . 1
24
180($22\frac{1}{2}$
88
facit $22\frac{1}{2}$ yardes.

8 . . 180 . . 1
$\frac{2}{45}$ 1
45(22
22
facit $22\frac{1}{2}$ yardes

8 . . 180 . . 1
$22\frac{1}{2}$ $\frac{1}{8}$
facit $22\frac{1}{2}$ yardes.

8 . . 180 . . 1
facit $22\frac{1}{2}$ yardes.

1 $22\frac{1}{2}$ 1
8 . . 180 . . 1
1 $22\frac{1}{2}$
facit $22\frac{1}{2}$ yardes.

8 . . 180 . . 1
180 $22\frac{1}{2}$
facit $22\frac{1}{2}$ yardes.

the firſt and ſecond numbers in the order are brought in the reaſon of equalitie: therefore 22 ½ yardes is the number demaunded. But if we bring the aforeſaid 8 d and 15 ſh giuen, to be of one kinde by the anſwer and worke of the 8 queſtion of my ſecond booke: ſo reduced the numbers giuen are ⅔ ſh compared vnto 15 ſh, and then they ſtand thus ⅔ . . 15 . . 1, ſo that the aforeſaid fourth number proportionall deſired may be found by this inſtruction, by other ſixe ſeuerall maner of operations: to ſay.

1. 1. Firſt deuide 15 by ⅔, the quotient is 22 ½, this 22 ½ multiply by 1, the product is 22 ½: therefore 22 ½ yardes is the number deſired.

⅔ . . 15 . . 1	
1	
45 (22 ½	
22	
facit 22 ½ yardes.	

2. 2. Secondly, deuide ⅔ by 15, the quotient is 2/45, by this 2/45 deuide 1, the quotient is 22 ½. Therefore 22 ½ yardes is the number deſired.

⅔ . . 15 . . 1	
2/45 *facit* 22 ½ yardes.	

3. 3. Thirdly, deuide 1 by ⅓, the quotient is 1 ½, by this 1 ½ multiply 15, the product is 22 ½. Therefore 22 ½ yardes is the number deſired.

⅔ . . 15 . . 1	
7 ½ 1	
facit 22 ½ yardes.	

4. 4. Fourthly, multiply 15 by 1, the product is 15, this 15 deuide by ⅔, the quotient is 22 ½. Therefore 22 ½ yardes is the number deſired.

⅔ . . 15 . . 1	
45	
facit 22 ½ yardes.	

5. 5. Fiftly, the 1 ½ times of ⅔ is 1, and the 1 ½ times of 15 is 22 ½, then the numbers ⅔ . . 15 . . 1 giuen ſtand thus 1 . . 22 ½ . . 1, by which meanes the firſt and third numbers in the order are brought in the reaſon of equalitie. Therefore 22 ½ yardes is the number demaunded.

⅔ . . 15 . . 1	
1 22 ½	
facit 22 ½ yardes.	

6. 6. Sixtly, the 22 ½ times of ⅔ is 15, and the 22 ½ times of 1 is 22 ½. Then the numbers ⅔ . . 15 . . 1 giuen ſtand thus 15 . . 15 . . 22 ½, by which meanes the firſt and ſecond numbers in the order are brought in

⅔ . . 15 . . 1	
15 22 ½	
facit 22 ½ yardes.	

the

the reaſon of equalitie. Therefore 22 1/3 yardes is the number required. Yet more: if we bring the aforeſaid 8 d and 15 ſh giuen, to be of one kinde by the 9 and 15 queſtion of my ſecond booke: ſo reduced the numbers are 1/30 I compared vnto 1/4 1, and then they ſtand thus, 1/30 . . 1/4 . . 1 ſo that the aforeſaid fourth number proportionall demaunded, may be found by this inſtruction by other ſix ſeuerall manner of workes to ſay.

1/30 . . 1/4 . . 1
22
90 (22 1/3
44
facit 22 1/3 yardes.

1. 1. 1. Firſt deuide 1/4 by 1/30, the quotient is 22 1/2, this 22 1/2 multiply by 1, the product is 22 1/2. Therefore 22 1/2 yardes is the number required.

1/30 . . 1/4 . . 1
4/30 22
90 (22 1/2
44
facit 22 1/2 yardes.

2. 2. 2. Secondly, deuide 1/30 by 1/4, the quotient is 4/30, by this 4/30 deuide 1, the quotient is 22 2/3: therefore 22 1/3 yardes is the number demaunded.

1/30 . . 1/4 . . 1
30
7 1/2
facit 22 1/2 yardes.

3. 3. 3. Thirdly, deuide 1 by 1/30, the quotient is 30, this 30 multiply by 1/4, the product is 22 1/2. Therefore 22 1/2 yardes is the number deſired.

1/30 . . 1/4 . . 1
90
fa: 22 1/2 yardes.

4. 4. 4. Fourthly, multiply 1/4 by 1, the product is 1/4, this 1/4 deuide by 1/30, the quotient is 22 1/2. Therefore 22 1/2 yardes is the number demaunded.

1/30 . . 1/4 . . 1
1 22 1/2
facit 22 1/2 yardes.

5. 5. 5. Fiftly, the 30 times of 1/30 is 1, and the 30 times of 1/4 is 22 1/2, then the numbers 1/30 . . 1/4 . . 1 giuen ſtand thus, 1 . . 22 1/2 . . 1 by which meanes, the firſt and third numbers in the order, are brought in the reaſon of equalitie. Therfore 22 1/2 yards is the number deſired.

1/30 . . 1/4 . . 1
1/4 22 1/2
facit 22 1/2 yardes.

6. 6. 6. Sixtly, the 22 1/2 times of 1/30 is 1/4, and the 22 1/2 of 1 is 22 1/2. Then the numbers 1/30 . . 1/4 . . 1 giuen, ſtand thus 1/4 . . 1/4 . . 22 1/2 by which meanes, the firſt and ſecond numbers in the order are brought in the

reason of equalitie. Therefore $22\frac{1}{2}$ yardes is the number desired.

Que: 8. And I do demaund, if the substance of the aforesaid answers doth not serue for the answer of all the next following questions, vntill the 79 question, where the answer of the same question doth import, that when the numbers there giuen, which must be compared together, are brought or reduced into pounds, then the three numbers there giuen stand thus in their order, 112 . . $17\frac{1}{7}$ . . 14 and then by this instruction the answer desired may be found the six seuerall maner of waies aforesaid. Againe when the numbers there giuen which must be compared, are brought or reduced into hundreth weights. Then the three numbers giuen stand thus in their order, 1 . . $17\frac{1}{7}$ . . $\frac{1}{8}$ and then by this instruction the number demaunded may be found also, the sixe seuerall manner of wayes aforesaid.

Que: 9. And I do demaund, if the substance of the aforesaid answers, doth not serue for the answer of all the next following questions, vntill the 84 question: where the answer there doth import, as the aforegoing: that is, when the numbers there giuen are reduced as is aforesaid, and placed in order, they are 1 . . 28 . . $\frac{1}{4}$ or els 16 . . 28 . . 4 and that by each of these orders of numbers, the number demaunded may be found by this instruction the sixe seuerall manner of wayes aforesaid.

Que: 10. And I do demaund, if the substance of the aforesaid answers doth not serue for the answering of all the next following questions, vntill the 205 question: where the answer of that question doth require, nothing more to be done then is aforesaid. And of like facilitie and multiplicitie of waies, are all the operations to finde the answers of all the next following questions, as by their seuerall answers in their seuerall places it doth appeare: vntill the 401 question, where the numbers by which the operation there is wrought, are placed in their orders as here you see them placed in the example. And if we graunt the reader of my second booke now that he hath

1 . . 6 . . 17
110 . . 100 . . —

proceeded

proceeded thus farre in the same, to haue attained but so much vnderstanding as to conceiue, that the voide place in the second order of numbers, occupied there with a line. Thus 110 . . 100 . . — must haue in that voide place where the line is written, the fourth number proportionall vnto the three numbers next aboue them there written, thus 1 . . 6 . . 17, which said fourth number proportionall by this instruction is 102 sh, then the numbers aforesaid so placed are 110 . . 100 . . 102, whose fourth number proportionall by this instruction is $92\frac{8}{11}$ sh. Therefore $92\frac{8}{11}$ sh is the number demaunded in the said question, & is to be found by this instruction so many different wayes as is aforesaid. And I do demaund if it be granted as is aforesaid, that the voide place occupied with a line in any order of numbers aforesaid, must haue in that place the fourth number proportionall vnto the three numbers there next aboue them written, whether then my instructions doth not shew how to worke all the aforegoing questions, and also all the next following questions, many different waies, as is aforesaid, euen vntill the 567 question, which is the last question of my second booke. And if it be graunted that it doth as it is apparently true, by that which is aforesaid: then I haue hereby aswell instructed learners, as discouered the ignorance, and negligence, of those men which say that I haue not shewed how to make the operations whereby to answer the questions propounded in my second booke, which was my intent. And though I haue ouer and beside all the aforesaid operations: set downe an other way, very briefe and excelent, to shew the worthinesse of this art, and to admonish men, that when they haue learned much in this art, that therefore they haue not learned all this art, wherby to stirre vp their mindes to a further search of things, haue I thereby giuen any iust cause to say, that I haue not shewed the way to worke the answers of my questions? Now to returne to our pretended purpose, which is to teach and to direct such learners in the truth of this art, as haue delight in the same, and pleasure in the examining of the operation thereof. For therby they may discerne the truth from falshood: and thereby they may come to the knowledge of many

notable abreuiations in their operations.

Que: 12. Therefore, if 1 peece compared vnto $13\frac{1}{3}$ peeces, be two numbers giuen, and 5 l be a third number giuen: as it is in the 70 queſtion of my ſecond booke, and it is required to finde a fourth number proportionall vnto the ſaid three numbers giuen. Place the numbers giuen in order as is aforeſaid, thus 1 . . $13\frac{1}{3}$ . . 5, then conſider which of the ſixe aforeſaid wayes is the moſt conuenient to attaine vnto the purpoſe pretended: and it is to multiply $13\frac{1}{3}$ the middle number in the order, by 5 the third or laſt number in the order, the product is $67\frac{1}{3}$. And becauſe 1 the firſt number in the order, doth neuer alter the number multiplied or deuided by the ſame: therfore $67\frac{1}{3}$ l is the number demaunded.

70

1 . . $13\frac{1}{3}$ . . 5

facit $67\frac{1}{3}$ l.

Que: 13. If $7\frac{1}{3}$ yardes compared vnto $8\frac{1}{3}$ yardes, be two numbers giuen, and 9 ſh be a third number giuen, as it is in the 100 queſtion of my ſecond booke: and it is required to finde a fourth number proportionall vnto the ſaid three numbers giuen. Place the numbers giuen in order as is aforeſaid, thus $7\frac{1}{3}$ . . $8\frac{1}{3}$ . . 9, then caſt in your minde which is the beſt way of the ſixe aforeſaid, to attaine to the number deſired: And it is to multiply $8\frac{1}{3}$ the middle number in the order, by 9 the laſt number in the order, the product is 75. This 75 deuide by $7\frac{1}{3}$ the firſt number in the order, the quotient is 10, therefore 10 ſh is the number demaunded.

$7\frac{1}{3}$ . . $8\frac{1}{3}$ . . 9

75

facit 10 ſh

Que: 14. If $\frac{1}{12}$ L compared vnto $\frac{1}{3}$ L be two numbers giuen, and $\frac{1}{2}$ d be a third number giuen, as it is in the 101 queſtion of my ſecond booke: and it is required to finde a fourth number proportionall vnto the ſaid three numbers giuen. Place the numbers giuen in order as is aforeſaid, thus $\frac{1}{12}$ . . $\frac{1}{3}$ . . $\frac{1}{2}$ then following the ſame way of the ſixe aforeſaid, that we did for the finding of the two laſt numbers deſired, as the more conuenient for young learners. Multiply $\frac{1}{3}$ the middle num-

number in the order by $\frac{1}{2}$ the last number in the order, the product is $\frac{1}{6}$ or $\frac{1}{3}$, this $\frac{1}{3}$ deuide by $\frac{1}{32}$ the first number in the order, the quotient is $10\frac{2}{3}$. Therefore $10\frac{2}{3}$ d is the number demaunded. And in like manner you may consider and worke all other. Yet in this behalfe to leaue the lesse vnsaid, and for the more instruction of yong learners: let vs consider how the aforesaid operations may be accomplished with order, perfectnesse and some more breuitie.

$\frac{1}{32} \cdot \cdot \frac{1}{3} \cdot \cdot \frac{1}{2}$

$\frac{1}{3}$

facit $10\frac{2}{3}$ d

Que: 15. If 7 yardes compared vnto $3\frac{3}{8}$ yardes be two numbers giuen, and 3 l $5\frac{1}{2}$ d be a third number giuen, as it is in the 129 question of my second booke: and it is required to finde a fourth number proportionall vnto the said three numbers giuen.

2 first cond name

129 q.

1. Place the numbers giuen in order as is aforesaid, thus, $7 \cdot \cdot 3\frac{3}{8} \cdot \cdot 3 \cdot - \cdot 5\frac{1}{2}$. Then reduce the numbers that are or must be compared together, vnder one name, which is heere conueniently done, in bringing l $3 \cdot - \cdot 5\frac{1}{2}$ into pence, and so they stand thus, $7 \cdot \cdot 3\frac{3}{8} \cdot \cdot 725\frac{1}{2}$, then multiply $3\frac{3}{8}$ the middle number in the order, by $725\frac{1}{2}$ the product is $\frac{39177}{16}$, this $\frac{39177}{16}$ deuide by 7 the first number in the order, the quotient is $349\frac{89}{112}$: therefore $349\frac{89}{112}$ d is the number demaunded: the whole worke according to this manner of operation, is here placed in the example, the

$7 \cdot \cdot 3\frac{3}{8} \cdot \cdot 3 \cdot - \cdot 5\frac{1}{2}$

27

8

1451

27

10157

2902

39177

16

240

$3 \cdot 725\frac{1}{2}$ this m by 2

1451 product $\frac{1451}{2}$

2

108

5599

39177(349

11222

111

1

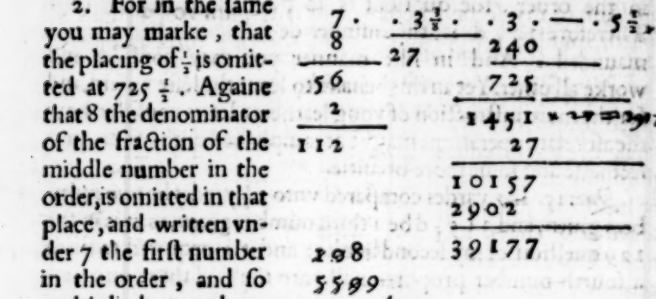
facit $349\frac{89}{112}$ d

$\frac{39177}{16}$ by $\frac{112}{7}$

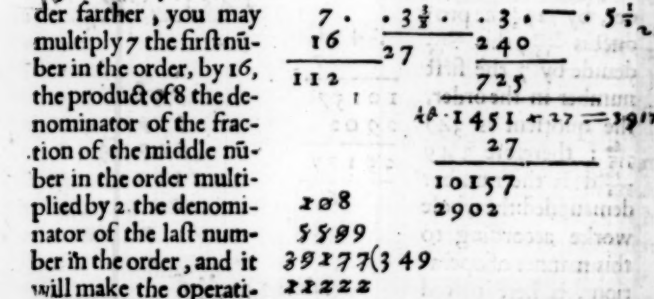
$349\frac{89}{112}$

which though it be both in good order and true: yet it is in ſome better order, more briefe, and alſo true, in this manner here next placed:

2. For in the ſame you may marke, that the placing of $\frac{1}{2}$ is omitted at $725\frac{1}{2}$. Againe that 8 the denominator of the fraction of the middle number in the order, is omitted in that place, and written vnder 7 the firſt number in the order, and ſo multiplied together, the product is 56. More that 2 the denominator of $\frac{1451}{2}$ the fraction of the third number in the order is there omitted, and written vnder 56, now the firſt number in the order, and ſo multiplied together, the product is 112. Yet more, that 1451 is omitted to be two times written, and all the reſt is in the one operation like the other.



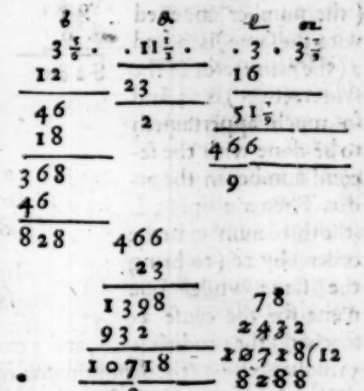
3. Alſo if you conſider farther, you may multiply 7 the firſt nũber in the order, by 16, the product of 8 the denominator of the fraction of the middle nũber in the order multiplied by 2 the denominator of the laſt number in the order, and it will make the operations aforeſaid ſo much the briefer, and to the



ſame

ſame effect, as is apparently to be ſeene in the examples.

Que: 16. If $3\frac{5}{6}$ ſh, compared vnto $11\frac{1}{2}$ d be two numbers giuen, and 3 L $3\frac{7}{9}$ oz: be a third number giuen, as it is in the 156 queſtion of my ſecond booke: and it is required to finde a fourth number proportionall vnto the ſaid three numbers giuen.



1. Place the numbers giuen in order as is aforeſaid. Then reduce the numbers which are or muſt be compared together, vnder one name. That is here conueniently done, in reducing $3\frac{5}{6}$ ſh multiplied by 12 into 46 d and 3 L (multiplied by 16) and $3\frac{7}{9}$ oz: into $51\frac{7}{9}$ oz: then multiplying and deuiding as is aforeſaid, we finde $12\frac{782}{828}$ oz: to be the number demaunded, as heere you may ſee it done in the example.

ſ	d	L	oz
$3\frac{5}{6}$.	. $11\frac{1}{2}$.	. 3 .	$3\frac{7}{9}$
12	23	16	
46	2	$51\frac{7}{9}$	
18		466	
368		9	
46			
828	466		
	23		
	1398	78	
	932	2432	
	10718	10718(12	
	18	8288	
		82	

facit $12\frac{782}{828}$ oz:

2. But if we marke that many numbers in this operation, are two times written, and then do diligently conſider how the ſame might be omitted: we ſhall finde the ſame to be accompliſhed in part as is before ſaid, and the reſt in this manner following. Place the numbers giuen in order as is aforeſaid: then multiply $3\frac{5}{6}$ ſh the firſt number in the order by 12, to bring them into pence, for the cauſe aforeſaid, the product is 46 d, this 46 multiply by 2 the denominator of the fraction of the middle number in the order, the product is 92. this 92 multiply by 9, the denominator of the fraction of the laſt number in the order, the product is 828, this 828 is the deuider for the finiſhing of this worke, and ſo much appertaineth to be done for

the first number in the order. Then comming to 11 $\frac{1}{2}$ the next number in the order, say 2 (the denominator of the fraction there) times 11 (the number annexed vnto the same) is 22, and 1 (the numerator of the said fraction) is 23, and so much appertaineth to be done with the second number in the order. Then multiply 3 L (the third number in the order) by 16 (to bring the same vnder one name for the cause aforesaid) the product is 48, and 3 oz: there annexed is 51, this 51 multiply by 9 (the denominator of the fraction there) adding 7 (the numerator there) vnto the product, the aggregat is 466, this 466 multiply by 23 (now found to be the middle number in the order) the product is 10718, this 10718 deuide by 828 (now found to be the first number in the order) the quotient is 12 $\frac{782}{828}$. Therefore 12 $\frac{782}{828}$ oz: or 12 $\frac{17}{18}$ oz: is the number desired: and is found both in good order, and with omitting the iterate writing of many numbers written in the other operatiō as you may apparētly discerne in the examples.

$3\frac{5}{6}$ . . $11\frac{1}{2}$ . . 3 . $3\frac{7}{8}$

12   23   16

46   51

2   466

92   23

9   1398

828   332

10718

78

2432

10718(12

8288

82

facit 12 $\frac{782}{828}$ oz:

Que: 17. If 1 l 14 $\frac{1}{6}$ sh compared vnto 3 $\frac{1}{4}$ l, be two numbers giuen, and 5 $\frac{4}{9}$ L be a third number giuen, as it is in the 158 question of my second booke, and it is required, to finde a fourth number proportionall vnto the said three numbers giuen Place the numbers giuen in order as is before said. Then reduce the numbers that are or must be compared together vnder one name and worke as is aforesaid, all which is conueniently done in this manner. Multiply 1 l (of the 1 l 14 $\frac{1}{6}$ sh the first number in the order) by 20, adding to the product the said

159

14 sh,

14 sh, the aggregar is 34, this 34 multiply by 6 the denominator of the fraction there, adding vnto the product 1 the numerator of the fraction there, the aggregar is 205, this 205 multiply by 9 the denominator of the fraction of the middle number in the order. The product is 1845, this 1845 multiply by 7 the denominator of the fraction of the last number in the order. The product is 12915, this 12915 is the deuider for the finishing of this worke, and so much appertaineth to be done for the first number in the order. Then comming vnto $5\frac{4}{9}$ the second number in the order. Say 9 (the denominator of the fraction there) times 5 (the whole number ioined with the same) is 45, and 4 (the numerator of the fraction there) is 49, this 49 multiply by 6 the denominator of the fraction of the first number in the order. The product is 294, and so much appertaineth to be done with the second number in the order. Then comming vnto $3\frac{1}{7}$ the third number in the order, multiply 7 (the denominator of the fraction there) by 3 the whole number there, the product is 21, and 1 (the numerator there) is 22, this 22 multiply by 20 (to reduce the pounds into shillings, because the first number in the order vnto which it is compared, is reduced into shillings) the product is 440, this 440 multiply by 294 now found to be the second number in the order, the product is 129360, this 129360 deuide by 12915 (now found to be the first number in the order) the quotient is $10\frac{210}{12915}$. Therfore $10\frac{210}{12915}$ L, or $10\frac{2}{123}$ L, is the number desired. Here is to be noted, that it is euer all one, whether the nūber giuen, vnto the which the other number giuen of the same kinde is compared be placed to be the second or third

$1 . 14\frac{1}{6}$	$. 5\frac{4}{9}$	$. 3\frac{1}{7}$
20	49	22
34	6	20
205	294	440
9	440	21
1845	1176	129360(10
7	1176	12915
12915	129360	

facit $10\frac{210}{12915}$ L.

$1 - 205 \,|\, 2 - 44 \,|\, 3 - 4$

$\frac{6}{2}$ e $\frac{9}{3} = 6$

in tyri oppor pon

go

$205 \times 3 = 615$

$440 \times 2 \times 7 = 6160$

Here it is

$205 \times 9 \times 7 = 12915$

$49 \times 6 \times 294 + 440 = 12936$

Nota

number in the order aforesaid. Thus (though this last way be the most conuenient to be ordinarily vsed) in any of the manners that are aforesaid, you may worke to finde a fourth number proportionall, vnto any three numbers so giuen as is before said. But to make declaration of the causes and reasons of each particuler briefe operation contained in my second booke of Arithmetick, would require a greater volume then at this time is conuenient. Yet for the benefit of learners we will declare so many of them as are sufficient: aswell thereby to vnderstand all the rest, as to deuise many other of themselues. First you must learne the tables here following, very perfectly by hart. Also the order to make them, or any such other like tables, by the operations of the 22, 23, 31, 33, 38, 39, and such like questions of my second booke. For this art doth presuppose that you know all such things requisite.

This table dooth shew what any two numbers do amount vnto multiplied together: the one not being aboue 9, the other betweene 9 and 17.

1	2	3	4	5	6	7	8	9
10	20	30	40	50	60	70	80	90
11	22	33	44	55	66	77	88	99
12	24	36	48	60	72	84	96	108
13	26	39	52	65	78	91	104	117
14	28	42	56	70	84	98	112	126
15	30	45	60	75	90	105	120	135
16	32	48	64	80	96	112	128	144

This table doth shew what these parts of 1 sh are in pence.

d	is the	sh
1	. .	$\frac{1}{12}$
$1\frac{1}{2}$	. .	$\frac{1}{8}$
2	. .	$\frac{1}{6}$
3	. .	$\frac{1}{4}$
4	. .	$\frac{1}{3}$
$4\frac{1}{2}$	. .	$\frac{3}{8}$
6	. .	$\frac{1}{2}$
$7\frac{1}{2}$	. .	$\frac{5}{8}$
8	. .	$\frac{2}{3}$
9	. .	$\frac{3}{4}$
10	. .	$\frac{5}{6}$
$10\frac{1}{2}$	. .	$\frac{7}{8}$

This table doth shew what these parts of 1 L are in ounces.

oz:	is the	L
1	. .	$\frac{1}{16}$
2	. .	$\frac{1}{8}$
3	. .	$\frac{3}{16}$
4	. .	$\frac{1}{4}$
5	. .	$\frac{5}{16}$
6	. .	$\frac{3}{8}$
7	. .	$\frac{7}{16}$
8	. .	$\frac{1}{2}$
9	. .	$\frac{9}{16}$
10	. .	$\frac{5}{8}$
11	. .	$\frac{11}{16}$
12	. .	$\frac{3}{4}$
13	. .	$\frac{13}{16}$
14	. .	$\frac{7}{8}$
15	. .	$\frac{15}{16}$

This table doth shew what these parts of 1 l are in shillings.

sh	is the	l
2	. .	$\frac{1}{10}$
4	. .	$\frac{2}{10}$
6	. .	$\frac{3}{10}$
8	. .	$\frac{4}{10}$
10	. .	$\frac{5}{10}$
12	. .	$\frac{6}{10}$
14	. .	$\frac{7}{10}$
16	. .	$\frac{8}{10}$
18	. .	$\frac{9}{10}$

This table doth shew what these parts of 1 l are in pence.

d	is the	l
$1\frac{1}{2}$	. .	$\frac{1}{160}$
2	. .	$\frac{1}{120}$
3	. .	$\frac{1}{80}$
4	. .	$\frac{1}{60}$
6	. .	$\frac{1}{40}$
8	. .	$\frac{1}{30}$

6 8 is tyt $\frac{5}{16}$ l
7 6 is tyt $\frac{3}{8}$ l
12 6 is tyt $\frac{3}{8}$ l

L

...ut ... of 1 is $4\frac{1}{2}$ Answer Divide tyt $4\frac{1}{2}$ by 12. And not ...2 by $4\frac{1}{2}$. Divide $\frac{9}{2}$ by $\frac{12}{1}$ farit $\frac{9}{24}$ or $\frac{3}{8}$

This table doth shew what these parts of 1 l are in sh *and* d.

sh	d	is the	l
1	—		1/20
1	3		1/12
1	4		1/10
1	8		1/6
2	6		1/3
2	8		2/5
3	—		3/20
3	4		1/5
3	9		9/40
4	—		1/4
5	—		1/4
5	4		1/3
6	3		3/10
6	8		7/20
7	—		7/20
7	6		2/5
8	—		2/5
8	4		1/2
8	9		11/20
9	—		9/20
9	4		1/2
10	8		13/20
11	—		11/20
11	3		3/5
11	8		7/10
12	—		3/5
12	6		13/20
13	—		13/20
13	4		2/3
13	9		29/40
14	8		17/20
15	—		3/4
16	—		4/5
16	3		41/50
16	8		21/25
17	—		17/20
17	4		11/15
17	6		9/10
18	4		11/12
18	8		19/20
18	9		15/16
19	—		19/20

This table doth shew what these parts of 1 C are in pounds.

L is the	C
7	1/16
8	1/14
14	1/8
16	1/7
21	3/16
24	1/4
28	1/3
32	2/7
35	5/16
40	1/4
42	3/8
48	1/2
49	7/16
56	1/2

L is the	C
63	9/16
64	4/7
70	5/8
72	9/14
77	11/16
80	5/7
84	3/4
88	11/14
91	13/16
96	6/7
98	7/8
104	13/14
105	15/16

Then

Then proceeding to declare some of the briefe operations placed in my second booke of Arithmetick, we will number the questions in order after the 17 before written, as followeth.

Que: 18. If 1 cost 1 $\frac{1}{2}$ d, what cost 6 7 8 3 : answer. Place the numbers giuen as is shewed before in this instruction, and so do the like of all the other questions following. Then draw a line vnder the third number in the order: and because 1 $\frac{1}{2}$ d is $\frac{1}{12}$. 1 by the table: therefore take $\frac{1}{12}$. of 6 7 8 3 the number giuen, which is asmuch as to deuide 6 7 8 3 by 160, and because the last figure of the deuider is 0. Therefore make a prick for the same 0. vnder the line, and vnder 3 the last figure of the deuident as you see it done in the example. Then deuide 6 7 8 the rest of the figures by 16. Or take $\frac{1}{12}$ of 678: saying, how many times 16 in 67. 4 times: which 4 write vnder the line vnder the 7 of the said 67, remaineth 3: then say, how many times 16 in 38 (for so much maketh the 8 with the aforesaid 3 remaining ouer the 7) 2 times, which 2 write also vnder the line, vnder the 8 of the said 38, remaineth 6: which 6 maketh the 3 ouer the aforesaid prick which is made vnder the line for the, 0. of the deuider, to be 63, which 63 so taken are so many 1 $\frac{1}{2}$ d. Then because 1 $\frac{1}{2}$ d is $\frac{1}{8}$ sh in the table, therefore take $\frac{1}{8}$ of the said 63, saying how many times 8 in 63: seauen times, which 7 write vnder the aforesaid line beyond the aforesaid prick in the place of shillings, remaineth 7, which is $\frac{7}{8}$ sh, that is 10 $\frac{1}{2}$ d in the table, which 10 $\frac{1}{2}$ d write also vnder the aforesaid line in the place of pence, making a pricke betweene the 7 sh and 10 $\frac{1}{2}$ d, as here you see it done in the example, so the facit is found to be l 42 . 7 . 10 $\frac{1}{2}$.

1 . . 1 $\frac{1}{2}$ . . 6783

facit l 42 . 7 . 10 $\frac{1}{2}$

Que: 19. If 1 cost 2 d, what cost 6 7 8 3 : answer. Do as in the last question, onely excepted that you must consider because 2 d is $\frac{1}{12}$. 1 in the table: therefore you must take here $\frac{1}{12}$ of 678: saying, how many times 12 in 67. 5 times, remaineth 7, then how many times 12 in 78, 6 times, remaineth

1 . . 2 . . 6783

facit l 56 . 10 . 6

6. Then alſo becauſe 2 d is $\frac{1}{6}$ ſh in the table, therfore ſay here $\frac{1}{6}$ of 6 remaining is 1, and $\frac{1}{6}$ of 3 (ouer the pricke) is 0, which ſaid 1 and 0 place in the place of ſhillings, remaineth 3 which is $\frac{1}{6}$ ſh or $\frac{1}{3}$ ſh that is in the table 6 d, which 6 d place in the place of pence, as here you ſee it done in the example.

Que:20. If 1 coſt 3 d, what coſt 6783: anſwer. Do as you did in the two before going queſtions: ſaying (becauſe 3 d is $\frac{1}{20}$. l in the table) $\frac{1}{20}$ of 67 is 8, remaineth 3. Then $\frac{1}{20}$ of 38 is 4, remaineth 6. Then (becauſe 3 d is $\frac{1}{4}$ ſh in the table) $\frac{1}{4}$ of the ſaid 6 remaining is 1, remaineth 2. Then $\frac{1}{4}$ of 23 is 5 remaineth 3, which is $\frac{1}{4}$ ſh, that is 9 d in the table, writing all things as here you ſee it done in the exemple.

1 . . 3 . . 6783
facit l 84 . 15 . 9

Que:21. If 1 coſt 4 d, what coſt 6783: anſwer. Say (becauſe 4 d is $\frac{1}{5}$. l in the table) $\frac{1}{5}$ of 6 is 1. Then $\frac{1}{5}$ of 7 is 1 remaineth 1, then $\frac{1}{5}$ of 18 is 3. Then (becauſe 4 d is $\frac{1}{3}$ ſh in the table) ſay $\frac{1}{3}$ of 3 remaining is 1. As here you ſee in the example.

1 . . 4 . . 6783
facit l 113 . 1. —

Que:22. If 1 coſt 6 d, what coſt 6783: anſwer (becauſe 6 d is $\frac{1}{20}$. l in the table) ſay $\frac{1}{4}$ of 6 is 1 remaineth 2. thē $\frac{1}{4}$ of 27 is 6 remaineth 3, then $\frac{1}{4}$ of 38 is 9 remaineth 2: then (becauſe 6 d is $\frac{1}{3}$ ſh in the table) $\frac{1}{3}$ of 2 remaining is 1. Then $\frac{1}{3}$ of 3 is 1, remaineth 1, which is $\frac{1}{3}$ ſh, that is 6 d in the table: as here you ſee in the example.

1 . . 6 . . 6783
facit l 169 . 11 . 6

Que:23. If 1 coſt 8 d, what coſt 6784: anſwer. (Becauſe 8 d is $\frac{1}{15}$. l in the table) ſay $\frac{1}{7}$ of 6 is 2. Then $\frac{1}{7}$ of 7 is 2, remaineth 1, then $\frac{1}{7}$ of 18 is 6, then (becauſe 8 d is $\frac{2}{3}$ ſh in the table) double 4 remaining is 8. Then $\frac{1}{7}$ of that 8 is 2 remaineth 2, which is $\frac{2}{3}$ ſh that is 8 d in the table, as here you ſee in the example.

1 . . 8 . . 6784
facit l 226 . 2 . 8

Que: 24. If 1 coſt 1 ſh, what coſt 6783: anſwer (becauſe 1 ſh is $\frac{1}{20}$. l in the table) ſay $\frac{1}{3}$ of 6 ie 3: then $\frac{1}{3}$ of 7

1 . . 1 . . 6783
facit l 339 . 3 . —

is

is 3, remaineth 1. Then $\frac{1}{2}$ of 18 is 9, then 3 remaining is 3 ſh: as here you ſee in the example.

Que: 25. If 1 coſt 2 ſh, what coſt 6789: anſwer (becauſe 2 ſh is $\frac{1}{10}$. 1 in the table) ſay 2 ſh times 9 (which is ouer the prick) is 18 ſh, writing the ſame 18 ſh beyond the pricke in the place of ſhillings: then (becauſe the numerator of the ſaid $\frac{1}{10}$. 1 is 1) ſay 1 times 8 is 8: then 1 times 7 is 7: then 1 times 6 is 6, as in the example.

1 . . 2 . . 6789

facit l 678 . 18 . —

Que: 26. If 1 coſt 4 ſh, what coſt 6789: anſwer, (becauſe 4 ſh is $\frac{2}{10}$. 1) ſay 4 ſh times 9 (which is ouer the pricke is 36 ſh that is 1 l 16 ſh, writing 16 ſh, and keeping 1 l. Then (becauſe the numerator of the ſaid $\frac{2}{10}$. 1 is 2) ſay 2 times 8 is 16 and 1 you kept is 17, writing 7 and keeping 1. Then 2 times 7 is 14 and 1 you kept is 15, writing 5 and keeping 1. Then 2 times 6 is 12 and 1 you kept is 13, writing that 13, as here you ſee in the example.

1 . . 4 . . 6789

facit l 1357 . 16 . —

Que: 27. If 1 coſt 6 ſh, what coſt 6789: anſwer, (becauſe 6 ſh is $\frac{3}{10}$. 1) ſay 6 ſh times 9 (which is ouer the pricke) is 54 ſh, that is 2 l 14 ſh writing 14 ſh and keeping 2 l. Then multiply 678 (the other figures) by 3 the numerator of the ſaid $\frac{3}{10}$. 1 adding 2 l you kept: as here you ſee in the example.

1 . . 6 . . 6789

facit l 2036 . 14 . —

Que: 28. If 1 coſt 8 ſh, what coſt 6789: anſwer, (becauſe 8 ſh is $\frac{4}{10}$. 1) ſay 8 ſh times 9 (which is ouer the pricke) is 72 ſh, writing 12 ſh, and keeping 3 l. Then multiply 678 (the other figures) by 4 (the numerator of the ſaid $\frac{4}{10}$. 1) adding 3 l you kept, as here you ſee it done in the example.

1 . . 8 . . 6789

facit l 2715 . 12 . —

Que: 29. If 1 coſt 10 ſh, what coſt 6789: anſwer (becauſe 10 ſh is $\frac{5}{10}$. 1) ſay 10 ſh times 9 (which is ouer the pricke) is 90 ſh, writing 10 ſh and keeping 4 l. Then multiply 678 (the other figures)

1 . . 10 . . 6789

facit l 3394 . 10 . —

by 5 (the numerator of the said $\frac{5}{10}$ l) adding 4 l you kept: as here you see in the example.

Que: 30. If 1 cost 12 sh, what cost 6789: answer, (because 12 sh is $\frac{6}{10}$ l) say 12 sh times 9 (which is ouer the prick) is 108 sh, writing 8 sh, and keeping 5 l. Thē multiply 678 (the other figures) by 6 (the numerator of the aforesaid $\frac{6}{10}$ l) adding 5 l you kept, as here you see in the example.

1 . . 12 . . 6789
facit l 4073. 8. —

Que: 31. If 1 cost 14 sh, what cost 6789: answer, (because 14 sh is $\frac{7}{10}$ l) say 14 sh times 9 (which is ouer the pricke) is 126 sh, writing 6 sh and keeping 6 l. Then multiply 678 (the other figures) by 7 (the numerator of the said $\frac{7}{10}$ l) adding 6 l you kept, as here you see in the example.

1 . . 14 . . 6789
facit l 4752. 6. —

Que: 32. If 1 cost 16 sh, what cost 6789: answer (because 16 sh is $\frac{8}{10}$ l) say 16 sh times 9 (which is ouer the prick) is 144 sh, writing 4 sh and keeping 7 l. Then multiply 678 (the other figures) by 8 (the numerator of the said $\frac{8}{10}$ l) adding 7 l you kept, as here in the example.

1 . . 16 . . 6789
facit l 5431. 4. —

Que: 33. If 1 cost 18 sh, what cost 6789: answer (because 18 sh is $\frac{9}{10}$ l) say 18 sh times 9 (which is ouer the prick) in this maner 8 times 9 is 72, writing 2 and keeping 7. Then 1 time 9 is 9, and 7 you kept, is 16 halfe pounds, is 8 l, which keepe. Then multiply 678 (the other figures) by 9 (the numerator of the said $\frac{9}{10}$ l) adding 8 l you kept, as here you see in the example.

1 . . 18 . . 6789
facit l 6110. 2. —

Que: 34. If 1 cost 22 sh, what cost 6789: answer, (because 22 sh is $\frac{11}{10}$ l) say 22 sh times 9 (the figure ouer the pricke) in this manner, 2 times 9 is 18, writing 8 and keeping 1. Then 2 times 9 is 18 and 1 you kept is 19 halfe pounds is 9 $\frac{1}{2}$ l, writing $\frac{1}{2}$ l, that is 10 sh, that is 1 before the afore written 8, and keeping 9 l. Then multiply 678 (the other figures) by 11 the numerator of the said $\frac{11}{10}$ l, adding 9 l you kept, as here in the example.

1 . . 22 . . 6789
facit l 7467. 18. —

Que:

Que: 35. If 1 coſt 24 ſh, what coſt 6789: anſwer, (becauſe 24 ſh is $\frac{12}{10}$ l) ſay (in the ſame manner that you did in the 33 and 34 queſtions, with 18 ſh and 22 ſh) 24 ſh times 9 (which is ouer the pricke) is 10 l 16 ſh, writing 16 ſh and keeping 10 l. Then multiply 678 (the other figures) by 12 the numerator of the ſaid $\frac{12}{10}$ l adding 10 l you kept, as in the examp.

1 . . 24 . . 6789

facit l 8146 . 16 . —

Que: 36. If 1 coſt 1 ſh 3 d, what coſt 6789: anſwer, (becauſe 1 ſh 3 d is $\frac{7}{16}$ l in the table) take $\frac{1}{16}$ of 6789 (the third number in the order) ſaying $\frac{1}{16}$ of 67 is 4 remaineth 3: then $\frac{1}{16}$ of 38 is 2 remaineth 6, then $\frac{1}{16}$ of 69 is 4 remaineth 5, which is $\frac{7}{16}$ l, that is 6 ſh 3 d in the table: as in the example.

1 . . 1 . 3 . . 6789

facit l 424 . 6 . 3

Que: 37. If 1 coſt 1 ſh 8 d, what coſt 6789: anſwer (becauſe 1 ſh 8 d is $\frac{9}{12}$ l in the table) take $\frac{1}{12}$ of 6789 (the third number in the order) ſaying $\frac{1}{12}$ of 67 is 5 remaineth 7: then $\frac{1}{12}$ of 78 is 6 remaneth 6: then $\frac{1}{12}$ of 69 is 5 remaineth 9, that is $\frac{9}{12}$ l or $\frac{3}{4}$ l that is 15 ſh in the table: as in the example.

1 . . 1 . 8 . . 6789

facit l 565 . 15 . —

Que: 38. If 1 coſt 2 ſh, what coſt 6789: anſwer, (becauſe 2 ſh is $\frac{2}{10}$ l) take $\frac{1}{10}$ of 6789, ſaying $\frac{1}{10}$ of 67 is 6, remaineth 7. Then $\frac{1}{10}$ of 78 is 7 remaineth 8: then $\frac{1}{10}$ of 89 is 8 remaineth 9, that is $\frac{9}{10}$ l that is 18 ſh in the table. Here note, that it is better to ſay $\frac{1}{10}$ of 6789 is 678, remaineth 9, that is $\frac{9}{10}$ l that is 18 ſh: as here you ſee in the example.

1 . . 2 . . 6789

facit l 678 . 18 . —

Que: 39. If 1 coſt 2 ſh 6 d, what coſt 6789: anſwer (becauſe 2 ſh 6 d is $\frac{1}{3}$ l) take $\frac{1}{3}$ of 6789: ſaying, $\frac{1}{3}$ of 67 is 8 remaineth 3. Then $\frac{1}{3}$ of 38 is 4 remaineth 6, then $\frac{1}{3}$ of 69 is 8 remaineth 5, that is $\frac{5}{3}$ l, that is 12 ſh 6 d in the table. As here you ſee in the example.

1 . . 2 . 6 . . 6789

facit l 848 . 12 . 6

Que: 40. If 1 coſt 3 ſh 4 d, what coſt 6789: anſwer. (becauſe 3 ſh 4 d is $\frac{4}{3}$ l) take $\frac{1}{3}$ of 6789: ſaying $\frac{1}{3}$ of 6 is 1: then $\frac{1}{3}$ of 7 is 1 remaineth 1. then $\frac{1}{3}$ of 18 is 3, then $\frac{1}{3}$ of 9 is 1, remaineth 3, that is $\frac{3}{3}$ l or $\frac{1}{1}$ l, that is 10 ſh in the table, as here you ſee in the example.

1 . . 3 . 4 . . 6789

facit l 1131 . 10 . —

*Que:*41. If 1 coſt 4 ſh, what coſt 6789: anſwer, (becauſe 4 ſh is $\frac{1}{5}$ l) take $\frac{1}{5}$ of 6789. ſaying $\frac{1}{5}$ of 6 is 1 remaineth 1. Then $\frac{1}{5}$ of 17 is 3 remaineth 2: then $\frac{1}{5}$ of 28 is 5 remaineth 3. Then $\frac{1}{5}$ of 39 is 7 remaineth 4, that is $\frac{4}{5}$ l that is 16 ſh in the table: as here you ſee in the example.

1 . . 4 . . 6789

facit l 1357 . 16 . —

*Que:*42. If 1 coſt 5 ſh, what coſt 6789: anſwer, (becauſe 5 ſh is $\frac{1}{4}$ l) take $\frac{1}{4}$ of 6789, ſaying $\frac{1}{4}$ of 6 is 1 remaineth 2: then $\frac{1}{4}$ of 27 is 6 remaineth 3. Then $\frac{1}{4}$ of 38 is 9 remaineth 2: then $\frac{1}{4}$ of 29 is 7 remaineth 1, that is $\frac{1}{4}$ l that is 5 ſh in the table: as here you ſee in the example.

1 . . 5 . . 6789

facit l 1697 . 5 . —

Que: 43. If 1 coſt 6 ſh 8 d, what coſt 6788: anſwer, (becauſe 6 ſh 8 d is $\frac{1}{3}$ l) take $\frac{1}{3}$ of 6788, ſaying $\frac{1}{3}$ of 6 is 2. Then $\frac{1}{3}$ of 7 is 2 remaineth 1: then $\frac{1}{3}$ of 18 is 6: then $\frac{1}{3}$ of 8 is 2 remaineth 2, that is $\frac{2}{3}$ l, that is 13 ſh 4 d in the table: as you ſee in the example.

1 . . 6 . 8 . . 6788

facit l 2262 . 13 . 4

*Que:*44. If 1 coſt 10 ſh, what coſt 6789: anſwer, (becauſe 10 ſh is $\frac{1}{2}$ l) take $\frac{1}{2}$ of 6789, ſaying $\frac{1}{2}$ of 6 is 3: then $\frac{1}{2}$ of 7 is 3 remaineth 1. Then $\frac{1}{2}$ of 18 is 9: then $\frac{1}{2}$ of 9 is 4, remaineth 1, that is $\frac{1}{2}$ l, that is 10 ſh in the table: as here you ſee in the example.

1 . . 10 . . 6789

facit l 3394 . 10 . —

*Que:*45. If 1 L coſt 1 ſh 3 d, what coſt 97 L 7 oz: anſwer. Suppoſe that 1 L coſt 1 l, then 97 L 7 oz: coſt 97 l and $\frac{7}{16}$ l, that is by the table) 197 . 8 . 9, but 1 L doth coſt no more then 1 ſh 3 d, that is $\frac{1}{16}$ l. Therefore take $\frac{1}{16}$ of l 97 . 8 . 9 aforeſaid, ſaying, $\frac{1}{16}$ of 97 is 6 remaineth 1, that is 1 l, that is 20 ſh, and 8 ſh is 28 ſh. Then $\frac{1}{16}$ of 28 ſh is 1 ſh, remaineth 12 ſh, that is 144 d and 9 d is 153 d. Then $\frac{1}{16}$ of 153 d is $9\frac{9}{16}$ d: as here you ſee in the example.

1 . . . 1 . 3 . . 97 . 8 . 9 = $\frac{7}{16}$

facit l 6 . 1 . $9\frac{9}{16}$

*Que:*46. If 1 L coſt 1 ſh 8 d what coſt 95 L 13 oz: anſwer,

13 oz:

13 oz: after 1 l the pound is 16 ſh 3 d by the table, and 1 ſh 8 d is $\frac{1}{12}$ l, therefore (for the reaſon in the 45 queſtion) take $\frac{1}{12}$ of l 95 . 16 . 3, ſaying $\frac{1}{12}$ of 95 is 7 remaineth 11 l is 220 ſh and 16 ſh is 236 ſh. Then $\frac{1}{12}$ of 236: ſaying $\frac{1}{12}$ of 23 is 1, remaineth 11. Then $\frac{1}{12}$ of 116 is 9 remaineth 8 ſh is 96 d and 3 d is 99 d. Then $\frac{1}{12}$ of 99 d is 8 $\frac{1}{4}$ d. as here you ſee in the example.

1 . . 1 . 8 . . 95 . 16 . 3

facit l 7 . 19 . 8 $\frac{1}{4}$

13 oz is $\frac{13}{16}$ of a L
$\frac{13}{16}$ of l is 16 . 3
But 1 . 8 is $\frac{1}{12}$ l
Therefor take $\frac{1}{12}$ of 95 . 16 . 3.

Que: 47. If 1 coſt 2 ſh, what coſt 103 L 15 oz: anſwer 15 oz: after 1 l the pound is 18 ſh 9 d and 2 ſh is $\frac{1}{9}$ l, therefore take $\frac{1}{9}$ of l 103 . 18 . 9 as heere you ſee in the example.

1 . . 2 . . 103 . 18 . 9

facit l 10 . 7 . 10 $\frac{1}{2}$

Que: 48. If 1 L coſt 2 ſh 6 d, what coſt 131 L 7 oz: reckening 12 oz: for 1 L. Anſwer 7 oz: after 1 l the pound is $\frac{7}{12}$ l that is 11 ſh 8 d, and 2 ſh 6 d is $\frac{1}{8}$ l. Therefore take $\frac{1}{8}$ of l 131 . 11 . 8, as here you ſee in the example.

1 . . 2 . 6 . . 131 . 11 . 8

facit l 16 . 8 . 11 $\frac{1}{2}$

Que: 49. If 1 L coſt 3 ſh 4 d, what coſt 104 L 11 oz: reckening 12 oz: for 1 L: anſwer, 11 oz: after 1 l the pound is 18 ſh 4 d and 3 ſh 4 d is $\frac{1}{6}$ l, therefore take $\frac{1}{6}$ of l 104 . 18 . 4 . as here you ſee in the example.

1 . . 3 . 4 . . 104 . 18 . 4

facit l 17 . 9 . 8 $\frac{1}{3}$

Que: 50. If 1 yarde coſt 4 ſh, what coſt 67 $\frac{1}{3}$ yardes: anſwer, $\frac{1}{3}$ yarde after 1 l the yarde is $\frac{1}{5}$ l, that is 13 ſh 4 d, and 4 ſh is $\frac{1}{5}$ l. Therefore take $\frac{1}{5}$ of l 67 . 13 . 4, as here you ſee in the example.

1 . . 4 . . 67 . 13 . 4

facit l 13 . 10 . 8

Que: 51. If 1 elle coſt 5 ſh what coſt 1013 $\frac{7}{8}$ elles: anſwer $\frac{7}{8}$ elle after 1 l the elle is $\frac{7}{4}$ l, that is 17 ſh 6 d, and 5 ſh is $\frac{1}{4}$ l: therfore take $\frac{1}{4}$ of l 1013 . 17 . 6, as here you ſee in the example.

1 . . 5 . . 1013 . 17 . 6

facit l 253 . 9 . 4 $\frac{1}{2}$

Que: 43. If 1 oz: coſt 6 ſh 8 d, what coſt 97 oz: 11 d. reckening 20 d. for 1 oz: anſwere 11 d. after 1 L the ounce, is 11 ſh, and

6 ſh 8 d is ⅓ l. Therefore take ⅓ of l 97 . 11 . — as here you ſee in the example.

1 . . 6 . 8 . . 97 . 11 . —
facit l 32 . 10 . 4

Que: 53. If 1 oz: coſt 10 ſh, what coſt 37 oz: 17 d. 19 gr: reckening 20 d. for 1 oz: and 24 gr: for 1 d. Anſwer, 17 d. after 11 the 1 oz: is 17 ſh, and 19 gr: after 11 the ounce, that is after 1 ſh the penny weight, is 19 halfe pence, that is 9½ d. And 10 ſh is ½ l. Therefore take ½ of l 37 . 17 . 9½, as here you ſee in the example.

1 . . 10 . . 37 . 17 . 9½
facit l 18 . 18 . 10¼

Que: 54. If 1 coſt 3 ſh, what coſt 6789: anſwer, multiply 6789 by 3 ſh, the product is 20367 ſh which are by the 24 queſtion l 1018 . 7 . — as here you ſee in the example. Yet it is a briefer way to ſay 3 ſh times 9 is 27 ſh, writing 7 ſh, keeping 11. Then 3 times the ½ of 678, ſaying 3 times 9 (which is ½ of 18) is 27, and 1 you kept is 28, writing 8 and keeping 2. Then 3 times 3 (which is ½ of 7 remaineth 1, which made 8 to be the aforeſaid 18) is 9 and 2 you kept is 11, writing 1 and keeping 1. Then 3 times 3 (which is ½ of 6) is 9, and 1 you kept is 10, writing that 10, as here you ſee in the example.

1 . . 3 . . 6789
20367
facit l 1018 . 7 . —

1 . . 3 . . 6789
facit l 1018 . 7 . —

Que: 55. If 1 coſt 7 ſh, what coſt 6789: anſwer, multiply 6789 by 7 ſh, then take ½ of that product, as in the 24 and 54 queſtions, as here you ſee in the example. Yet it is a briefer way to ſay (as in the laſt queſtion) 7 ſh times 9 is 63 ſh, writing 3 ſh and keeping 3 l. Then 7 times the ½ of 678: ſaying 7 times 9 is 63. and 3 you kept is 66, writing 6 and keeping 6. Then 7 times

1 . . 7 . . 6789
47523
facit l 2376 . 3 . —

1 . . 7 . . 6789
facit l 2376 . 3 . —

3 is 21, and 6 you kept is 27, writing 7 and keeping 2. Then 7 times 3 is 21, and 2 you kept is 23, writing that 23, as here you see in the example.

Que: 56. If 1 cost 9 sh, what cost 3579: answer, multiply 3579 by 9 sh, then take $\frac{1}{20}$ of that product, as in the 24, 54, 55 questions, as here you see it done in the example. Yet it is a briefer way to say 9 times 19 (because 7 the next figure vnto 9 is odde) saying 9 times 9 is 81, writing 1 and keeping 8. Then 9 times 1 is 9 and 8 you kept is 17 halfe pounds, that is 8 $\frac{1}{2}$ l, writing $\frac{1}{2}$ l (as in the 34 question) then 9 times 8 (the $\frac{1}{2}$ of 17, because 5 the next figure vnto 7 is odde) is 72, and 8 you kept is 80, writing 0 and keeping 8. Then 9 times 7 (the $\frac{1}{2}$ of 15 because 3 the next figure vnto 5 is odde) is 63, and 8 you kept is 71, writing 1 and keeping 7. Then 9 times 1 (the $\frac{1}{2}$ of 3) is 9 and 7 you kept is 16, writing that 16, as here you see in the example.

1 . . 9 . . 3579

32211

facit l 1610 . 11 . —

1 . . 9 . . 3579

facit l 1610 . 11 . —

Que: 57. If 1 cost 11 sh, what cost 3579: answer, multiply 3579 by 11, then take $\frac{1}{20}$ of that product, as in the 24, 54, 55 and 56 questions: yet it is a briefer way to say 11 sh times 19 is 10 l 9 sh, writing 9 sh and keeping 10 l. Then 11 times 8 is 88, and 10 l you kept is 98, writing 8 and keeping 9. Then 11 times 7 is 77, and 9 you kept is 86, writing 6 and keeping 8. Then 11 times 1 is 11, and 8 you kept is 19, writing that 19, as in the 54. 55. and 56 questions, as here you see in the examples.

1 . . 11 . . 3579

39369

facit l 1968 . 9 . —

1 . . 11 . . 3579

facit l 1968 . 9 . —

Que: 58. If 1 cost 13 sh, what cost 357: answer. Multiply 357 by 13 sh, then take $\frac{1}{20}$ of the product, as in the first part of the 54. 55. 56. 57 questions. Or els

1 . . 13 . . 357

4641

facit l 232 . 1 . —

as in the ſecond worke of the ſaid queſtions, ſaying 13 ſh times 17 is 11 l 1 ſh, writing 1 ſh and keeping 11 l. Then 13 times 7 is 91, and 11 you kept is 102, writing 2 and keeping 10. Then 13 times 1 is 13, and 10 you kept is 23, writing that 23, as here you ſee in the example.

1 . . 13 . . 357
facit l 232 . 1 . —

Que: 59. If 1 coſt 15 ſh, what coſt 357. Anſwer, multiply 357 by 15 ſh, then take $\frac{1}{20}$ of the product, as in the firſt part of the 54. 55. 56. 57 and 58 queſtions: or els as in the ſecond worke of the ſaid queſtions: ſaying 15 ſh times 17 is 12 l 15 ſh, writing 15 ſh and keeping 12 l. Then 15 times 7 is 105 and 12 you kept is 117 writing 7 and keeping 11. Then 15 times 1 is 15, and 11 you kept is 26, writing that 26, as here you ſee in the example.

1 . . 15 . . 357
5355
facit l 267 . 15 . —

1 . . 15 . . 357
facit l 267 . 15 . —

Que: 60. If 1 coſt 17 ſh, what coſt 579: anſwer, multiply 579 by 17 ſh, ſaying 7 times 9 is 63, writing 3 and keeping 6. Then 7 times 7 is 49, and 6 you kept is 55, and 1 times 9 (being 9) is 64, writing 4 and keeping 6. Then 7 times 5 is 35, and 6 you kept is 41 and 1 times 7 (being 7) is 48, writing 8 and keeping 4. Then 1 times 5 is 5 and 4 you kept is 9, writing that 9. Then take $\frac{1}{20}$ of the whole product, as in the firſt part of the 54. 55. 56. 57. 58. 59 queſtions: or els as in the ſecond worke of the ſaid queſtions. 17 ſh times 19, ſaying 7 times 9 is 63, writing 3 and keeping 6. Then 7 times 1 is 7, and 6 you kept is 13, and 1 times 9 (being 9) is 22, and 1 times 1 (being 1 added in the ſecond place) is 32 halfe pound is 16 l keeping that 16 l. Then 7 times 8 (the $\frac{1}{2}$ of 17) is 56 and 16 you kept is 72, writing 2 and keeping 7. Then 7 times 2 (the $\frac{1}{2}$ of 5) is 14, and 7 you kept is 21, and 1 times 8 (the $\frac{1}{2}$ of 17 being 8) is 29, writing 9 and keeping 2. Then 1 time 2 (the $\frac{1}{2}$ of

1 . . 17 . . 579
facit 492 . 3 . —

1 . . 17 . . 579
facit 492 . 3 . —

of 5) is 2, and 2 you kept is 4, writing that 4, as here you see in the example.

Que: 61. If 1 cost 19 sh, what cost 579: answer, multiply 579 by 19 sh: saying, 9 times 9 is 81, writing 1, keeping 8. Then 9 times 7 is 63 and 8 you kept is 71 and 1 times 9 (being 9) is 80 writing 0 keeping 8. Then 9 times 5 is 45 and 8 you kept is 53, and 1 times 7 (being 7) is 60, writing 0 keeping 6. Then 1 times 5 is 5, and 6 you kept is 11 writing that 11, then take $\frac{1}{2}$ of the whole product, as in the first part of the 54. 55. 56. 57. 58. 59 and 60 questions: or els as in the second worke of the said questions, 19 sh times 19, saying 9 times 9 is 81 writing 1 keeping 8. Then 9 times 1 is 9, and 8 you kept is 17, and 1 times 9 (being 9) is 26, and 1 times 1 (being 1 added in the second place) is 36 halfe pounds is 18 l which keepe: then 9 times 8 (the $\frac{1}{2}$ of 17) is 72, and 18 you kept is 90, writing 0 keeping 9. Then 9 times 2 (the $\frac{1}{2}$ of 5) is 18, and 9 you kept is 27, and 1 times 8 (the $\frac{1}{2}$ of 17 being 8) is 35, writing 5 keeping 3. Then 1 times 2 (the $\frac{1}{2}$ of 5) is 2 and 3 you kept is 5, writing that 5, as here you see in the example.

1 . . 19 . . 579

1 1 0 0 1

facit l 5 5 0 . 1 . —

1 . . 19 . . 579

facit l 5 5 0 . 1 . —

Que: 62. If 1 cost 3 sh 9 d, what cost 6789: answer (because 3 sh 9 d is $\frac{3}{16}$ l) take $\frac{1}{16}$ of 6789, which is l 424 . 6 . 3, as in the 36 question. Then multiply the same by 3 (the numerator of the said $\frac{3}{16}$ l) saying 3 times 3 d is 9 d, writing that 9 d, then 3 times 6 sh is 18 sh, writing that 18 sh. Then 3 times 424 l is l 1272, writing the same as in the example: or multiply 6789 by 3 (the numerator of the said $\frac{3}{16}$ l) the product is 20367, then take $\frac{1}{16}$ of that product, as in the 36 question, as here you see it done in the example.

1 . . 3 . 9 . . 6789

424 . 6 . 3

facit l 1272 . 18 . 9

1 . . 3 . 9 . . 6789

20367

facit l 1272 . 18 . 9

Que: 63. If 1 coſt 6 ſh 3 d, what coſt 6789: anſwer, (becauſe 6 ſh 3 d is $\frac{5}{16}$ l) take $\frac{1}{16}$ of 6789 which is l 424. 6. 3, as in the 36 queſtion. Thē multiply the ſame by 5 (the numerater of the ſaid $\frac{5}{16}$ l) ſaying 5 times 3 d is 15 d, writing 3 d, keeping 1 ſh. Then 5 times 6 ſh is 30 ſh, and 1 ſh you kept is 31 ſh, writing 11 ſh keeping 1 l. Then 5 times 424 l adding 1 l you kept is 2121 l, writing the ſame, as in the example. Or multiply 6789 by 5 (the numerator of the ſaid $\frac{5}{16}$ l) the product is 33945, then take $\frac{1}{16}$ of that product, as in the 36 queſtion, as here you ſee in the example.

1 .. 6. 3 .. 6789

424. 6. 3

facit l 2121. 11. 3

1 .. 6. 3 .. 6789

33945

facit l 2121. 11. 3

Que: 64. If 1 coſt 7 ſh 6 d, what coſt 6789: anſwer (becauſe 7 ſh 6 d is $\frac{3}{8}$ l) take $\frac{1}{8}$ of 6789 which is l 848. 12. 6, as in the 39 queſtion. Then multiply the ſame by 3 (the numerator of the ſaid $\frac{3}{8}$ l) as in the 61. 62. and 63 queſtions. Or multiply 6789 by 3 (the numerator of the ſaid $\frac{3}{8}$ l) the product is 20367. Then take $\frac{1}{8}$ of that product, as in the 39 queſtion, as here you ſee in the example.

1 .. 7. 6 .. 6789

848. 12. 6

facit l 2545. 17. 6

1 .. 7. 6 .. 6789

20367

facit l 2545. 17. 6

Que: 65. If 1 coſt 8 ſh 4 d, what coſt 6789: anſwer, (becauſe 8 ſh 4 d is $\frac{5}{12}$ l) take $\frac{1}{12}$ of 6789, which is l 565. 15. — as in the 37 queſtion. Then multiply the ſame by 5 (the numerator of the ſaid $\frac{5}{12}$ l) as in the 61. 62. 63 & 64 queſtions. Or multiply 6789 by 5 (the numerator of the ſaid $\frac{5}{12}$ l) the product is 33945. Then take $\frac{1}{12}$ of the ſame, as in the 37 queſtion: as here you ſee in the example.

1 .. 8. 4 .. 6789

565. 15. —

facit l 2828. 15. —

1 .. 8. 4 .. 6789

33945

facit l 2828. 15. —

Que

*Que:*66. If 1 coſt 8 ſh 9 d, what coſt 6789: anſwer (becauſe 8 ſh 9 d is $\frac{7}{16}$ l) take $\frac{1}{16}$ of 6789 which is l 424 . 6 . 3, as in the 36 queſtion. Then multiply the ſame by 7 (the numerator of the ſaid $\frac{7}{16}$ l) as in the 61. 62. 63. 64 and 65 queſtions. Or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{16}$ l) the product is 47523. Then take $\frac{1}{16}$ of the ſame product. As in the 36 queſtion: as here you ſee in the example.

1 . . 8 . 9 . . 6789

424 . 6 . 3

facit l 2970 . 3 . 9

1 . . 8 . 9 . . 6789

47523

facit l 2970 . 3 . 9

*Que:*67. If 1 coſt 11 ſh 3 d, what coſt 6789: anſwer. (becauſe 11 ſh 3 d is $\frac{9}{16}$ l) take $\frac{1}{16}$ of 6789 which is l 424. 6. 3. as in the 36 queſtion. Then multiply the ſame by 9 (the numerator of the ſaid $\frac{9}{16}$ l) as in the 61. 62. 63. 64. 65 and 66 queſtions. Or multiply 6789 by 9 (the numerator of the ſaid $\frac{9}{16}$ l) the product is 61101. Thē take $\frac{1}{16}$ of the ſame product, as in the 36 queſtion, as here you ſee in the example.

1 . . 11 . 3 . . 6789

424 . 6 . 3

facit l 3818 . 16 . 3

1 . . 11 . 3 . . 6789

61101

facit l 3818 . 16 . 3

*Que:*68. If 1 coſt 11 ſh 8 d, what coſt 6789: anſwer, (becauſe 11 ſh 8 d is $\frac{7}{12}$ l) take $\frac{1}{12}$ of 6789 which is l 565 . 15 . — as in the 37 queſtion. Then multiply the ſame by 7 (the numerator of the ſaid $\frac{7}{12}$ l) as in the 61. 62. 63. 64. 65. 66 and 67 queſtions. Or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{12}$ l) the product is 47523. Then take $\frac{1}{12}$ of the ſame product, as in the 37 queſtion, as in the example.

1 . . 11 . 8 . . 6789

565 . 15 . —

facit l 3960 . 5 . —

1 . . 11 . 8 . . 6789

47523

facit l 3960 . 5 . —

*Que:*69. If 1 coſt 12 ſh 6 d, what coſt 6789: anſwer (becauſe 12 ſh 6 d is $\frac{1}{8}$ l) take $\frac{1}{8}$ of 6789, which is 848 l 12 ſh 6 d, as in the 39 queſtion. Then multiply the ſame by five

1 . . 12 . 6 . . 6789

848 . 12 . 6

facit l 4243 . 2 . 6

(the numerator of the said $\frac{1}{8}$ l) as in the 61. 62. 63. 64. 65. 66. 67 and 68 questions: or multiply 6789 by 5 (the numerator of the said $\frac{5}{8}$ l) the product is 33945. Then take $\frac{1}{8}$ of the same product as in the 39 question. As here you see in the example.

1 . . 12 . 6 . . 6789

33945

facit l 4243 . 2 . 6

Que: 70. If 1 cost 13 sh 4 d, what cost 6788: answer, (because 13 sh 4 d is $\frac{2}{3}$ l) take $\frac{1}{3}$ of 6788 which is l 2262. 13. 4 as in the 43 question. Then multiply the same by 2 (the numerator of the said $\frac{2}{3}$ l) as in the aforegoing questions, or multiply 6788 by 2 (numerator of the said $\frac{2}{3}$ l) the the product is 13576. Then take $\frac{1}{3}$ of the same product, as in the 43 question, as here you see in the example.

1 . . 13 . 4 . . 6788

2262 . 13 . 4

facit l 4525 . 6 . 8

1 . . 13 . 4 . . 6788

13576

facit l 4525 . 6 . 8

Que: 71. If 1 cost 13 sh 9 d what cost 6789: answer (because 13 sh 9 d is $\frac{11}{16}$ l) take $\frac{1}{16}$ of 6789, which is 424 l 6 sh 3 d, as in the 36 question. Then multiply the same by 11 (the numerator of the said $\frac{11}{16}$ l) as in the aforegoing questions: or multiply 6789 by 11 (the numerator of the said $\frac{11}{16}$ l) the product is 74679. Then take $\frac{1}{16}$ of the same product, as in the 36 question, as here you see in the example.

1 . . 13 . 9 . . 6789

424 . 6 . 3

facit l 4667 . 8 . 9

1 . . 13 . 9 . . 6789

74679

facit l 4667. 8. 9

Que: 72. If 1 cost 16 sh 3 d, what cost 6789: answer (because 16 sh 3 d is $\frac{13}{16}$ l) take $\frac{1}{16}$ of 6789 which is 424 l 6 sh 3 d, as in the 36 question. Then multiply the same by 13 (the numerator of the said $\frac{13}{16}$ l) as in the aforegoing questions: or multiply 6789 by 13 (the numerator of

1 . . 16 . 3 . . 6789

424. 6. 3

facit l 5516. 1. 3

of the ſaid $\frac{11}{16}$ l) the product is 88257. Then take $\frac{1}{16}$ of the ſame product, as in the 36 queſtion. As here you ſee in the example.

1 . . 16 . 3 . . 6789

88257

facit l 5 5 16. 1. 3

Que: 73. If 1 coſt 16 ſh 8 d, what coſt 6789: anſwer, (becauſe 16 ſh 8 d is $\frac{5}{6}$ l) take $\frac{1}{5}$ of 6789 which is 1131 l 10 ſh, as in the 40 queſtion. Then multiply the ſame by 5 (the numerator of the ſaid $\frac{5}{6}$ l) as in the aforegoing queſtions, or multiply 6789 by 5 (the numerator of the ſaid $\frac{5}{6}$ l) the product is 33945. Then take $\frac{1}{6}$ of the ſame product, as in the 40 queſtion, as here you ſee in the example.

16. 8 for $\frac{5}{6}$

1 . . 16 . 8 . . 6789

1131. 10. —

facit l 5657. 10. —

1 . . 16 . 8 . . 6789

33945

facit l 5657. 10. —

Que: 74. If 1 coſt 17 ſh 6 d what coſt 6789: anſwer (becauſe 17 ſh 6 d is $\frac{7}{8}$ l) take $\frac{1}{8}$ of 6789, which is l 848l. 12. 6, as in the 39 queſtiō. Thē multiply the ſame by 7 (the numerator of the ſaid $\frac{7}{8}$ l) as in the aforegoing queſtions: or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{8}$ l) the product is 47523. Then take $\frac{1}{8}$ of the ſame product, as in the 39 queſtion, or (becauſe the ſaid $\frac{7}{8}$ l wanteth $\frac{1}{8}$ l of 1 l) abate $\frac{1}{8}$ of 6789 (which is l 848. 12: 6) from the ſame, as here you ſee in the example.

17 6 for $\frac{7}{8}$ l

1 . . 17 . 6 . . 6789

848. 12. 6

facit l 5940. 7. 6

1 . . 17 . 6 . . 6789

47523

facit l 5940. 7. 6

1 . . 17. 6 . . 6789

848. 12. 6

facit l 5940. 7. 6

Que: 75. If 1 coſt 18 ſh 4 d, what coſt 6789: anſwer (becauſe 18 ſh 4 d is $\frac{11}{12}$ l) take $\frac{1}{12}$ of 6789, which is 565 l 15 ſh, as in

1 . . 18 . 4 . . 6789

565. 15. —

facit l 6223. 5. —

10 4 for $\frac{11}{12}$

the 37 queſtion. Then multiply the ſame by 11 (the numerator of the ſaid $\frac{11}{12}$ l) as in the aforegoing queſtions. Or multiply 6789 by 11 (the numerator of the ſaid $\frac{11}{12}$ l) the product is 74679: then take $\frac{1}{12}$ of the ſame product, as in the 37 queſtion. Or (becauſe the ſaid $\frac{11}{12}$ l wanteth $\frac{1}{12}$ l of 1 l) abate $\frac{1}{12}$ of 6789 (which is 565 l 15 ſh) from the ſame, as here you ſee in the example.

1 . . 18 . 4 . . 6789

74679

facit l 6223 . 5 . —

1 . . 18 . 4 . . 6789

565 . 15 . —

facit l 6223 . 5 . —

Que: 76. If 1 coſt 18 ſh 9 d, what coſt 6789: anſwer, (becauſe 18 ſh 9 d is $\frac{15}{16}$ l) take $\frac{1}{16}$ of 6789 which is l 424 l 6 ſh 3 d, as in the 36 queſtion. Then multiply the ſame by 15 (the numerator of the ſaid $\frac{15}{16}$ l) as in the aforegoing queſtions. Or multiply 6789 by 15 (the numerator of the ſaid $\frac{15}{16}$ l) the product is 101835. Then take $\frac{1}{16}$ of the ſame product, as in the 36 queſtion. Or (becauſe $\frac{15}{16}$ l wanteth $\frac{1}{16}$ l of 1 l) abate $\frac{1}{16}$ of 6789 (which is l 424 . 6 . 3) from the ſame as here you ſee in the example.

1 . . 18 . 9 . . 6789

424 . 6 . 3

facit l 6364 . 13 . 9

1 . . 18 . 9 . . 6789

101835

facit l 6364 . 13 . 9

1 . . 18 . 9 . . 6789

424 . 6 . 3

facit l 6364 . 13 . 9

Que: 77. If 1 coſt 4 $\frac{1}{2}$ d, what coſt 6789: anſwer (becauſe 4 $\frac{1}{2}$ d is $\frac{3}{160}$ l) take $\frac{1}{160}$ of 6789 (as in the 18 queſtion) and multiply the ſame by 3 (the numerator of the ſaid $\frac{3}{160}$ l). Or multiply 6789 by 3 (the numerator of the ſaid $\frac{3}{160}$ l) then take $\frac{1}{160}$ of that product, as in the 18 queſtion: as here in the example.

1 . . 4 $\frac{1}{2}$ . . 6789

42 . 8 . 7 $\frac{1}{2}$

facit l 127 . 5 . 10 $\frac{1}{2}$

1 . . 4 $\frac{1}{2}$ . . 6789

20367

facit l 127 . 5 . 10 $\frac{1}{2}$

Que: 78. If 1 coſt 7 $\frac{1}{2}$ d, what coſt 6789: anſwer, (becauſe 7 $\frac{1}{2}$ d is $\frac{5}{160}$

$\frac{7}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 18 queſtion) & multiply the ſame by 5 the numerator of the ſaid $\frac{5}{120}$ l. Or multiply 6789 by 5 (the numerator of the ſaid $\frac{5}{120}$ l) thē take $\frac{1}{120}$ of that product: as in the example.

1 . . $7\frac{1}{2}$ . . 6789

42 . 8 . $7\frac{1}{2}$

facit l 212 . 3 . $1\frac{1}{2}$

1 . . $7\frac{1}{2}$ . . 6789

33945

facit l 212 . 3 . $1\frac{1}{2}$

Que: 79. If 1 coſt $10\frac{1}{2}$ d, what coſt 6789: anſwer (becauſe $10\frac{1}{2}$ d is $\frac{7}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 18 queſtion) and multiply the ſame by 7 the numerator of the ſaid $\frac{7}{120}$ l. Or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{120}$ l) then take $\frac{1}{120}$ of that product: as here you ſee in the example.

$10\frac{1}{2}$ d is $\frac{7}{120}$ l

1 . . $10\frac{1}{2}$ . . 6789

42 . 8 . $7\frac{1}{2}$

facit l 297 . — . $4\frac{1}{2}$

1 . . $10\frac{1}{2}$ . . 6789

47523

facit l 297 . — . $4\frac{1}{2}$

Que: 80. If 1 coſt $13\frac{1}{2}$ d, what coſt 6789: anſwer, (becauſe $13\frac{1}{2}$ d, is $\frac{9}{160}$ l) take $\frac{1}{160}$ of 6789 (as in the 18 queſtion) and multiply the ſame by 9 the numeraror of the ſaid $\frac{9}{160}$ l. Or multiply 6789 by 9 (the nnmerator of the ſaid $\frac{9}{160}$ l) then take $\frac{1}{160}$ of that product, as in the 18 queſtion, as here you ſee in the example.

$13\frac{1}{2}$ d is $\frac{9}{160}$ l

1 . . $13\frac{1}{2}$ . . 6789

42 . 8 . $7\frac{1}{2}$

facit l 381 . 17 . $7\frac{1}{2}$

1 . . $13\frac{1}{2}$ . . 6789

61101

facit l 381 . 17 . $7\frac{1}{2}$

Que: 81. If 1 coſt 14 d, what coſt 6789: anſwer, (becauſe 14 d is $\frac{7}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 19 queſtion) & multiply the ſame by 7 the numerator of the ſaid $\frac{7}{120}$ l. Or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{120}$ l) then take $\frac{1}{120}$ of that product, as in the 19 queſtion.

14 d is $\frac{7}{120}$ l

1 . . 14 . . 6789

56 . 11 . 6

facit l 396 . — . 6

1 . . 14 . . 6789

47523

facit l 396 . — . 6

Que: 82. If 1 coſt 16d, what coſt 6789: anſwer (becauſe 16 d is $\frac{8}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 19 queſtion) and multiply the ſame by 8 the numerator of the ſaid $\frac{8}{120}$ l. Or multiply 6789 by 8 (the numerator of $\frac{8}{120}$ l) then take $\frac{1}{120}$ of that product. Or (becauſe 16 d is $\frac{4}{60}$ l) take $\frac{1}{60}$ of 6789 (as in the 21 queſtion) and multiply the ſame by 4 the numerator of the ſaid $\frac{4}{60}$ l. Or multiply 6789 by 4 (the numerator of the $\frac{4}{60}$ l) then take $\frac{1}{60}$ of that product, as in the 21 queſtion: or (becauſe 16 d is $\frac{2}{30}$ l) take $\frac{1}{30}$ of 6789 (as in the 23 queſtion) and multiply the ſame by 2 the numerator of the ſaid $\frac{2}{30}$ l. Or multiply 6789 by 2 (the numerator of the ſaid $\frac{2}{30}$, then take $\frac{1}{30}$ of that product, as in the 23 queſtion. Or (becauſe 16 d is $\frac{1}{15}$ l) take $\frac{1}{15}$ of 6789, as here you ſee in the example.

1 . . 16 . . 6789

56 . 11 . 6

facit l 452 . 12 . —

1 . . 16 . . 6789

54312

facit l 452 . 12 . —

1 . . 16 . . 6789

113 . 3 . —

facit l 452 . 12 . —

1 . . 16 . . 6789

27156

facit l 452 . 12 . —

1 . . 16 . . 6789

226 . 6 . —

facit l 452 . 12 . —

1 . . 16 . . 6789

13578

facit l 452 . 12 . —

1 . . 16 . . 6789

facit l 452 . 12 . —

Que: 83. If 1 coſt 16 $\frac{1}{2}$ d, what coſt 6789: anſwer, (becauſe 16 $\frac{1}{2}$ d, is $\frac{11}{160}$ l) take $\frac{1}{160}$ of 6789, and multiply the ſame by 11 the numerator of the ſaid $\frac{11}{160}$ l: Or multiply 6789 by 11 (the numerator of the ſaid $\frac{11}{160}$ l) then take $\frac{1}{160}$ of that product, as in the 18 queſtion.

1 . . 16 $\frac{1}{2}$ . . 6789

42 . 8 . 7 $\frac{1}{2}$

facit l 466 . 14 . 10 $\frac{1}{2}$

1 . . 16 $\frac{1}{2}$ . . 6789

74679

facit l 466 . 14 . 10 $\frac{1}{2}$

Que: 84. If 1 coſt 18 d, what coſt 6789: anſwer (becauſe 18 d is $\frac{9}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 19 queſtion) and mul-

multiply the ſame by 9 the numerator of the ſaid $\frac{9}{12}$. l. Or multiply 6789 by 9 (the numerator of the ſaid $\frac{9}{12}$. l) then take $\frac{1}{12}$. of that product, as in 19 queſtion. Or (becauſe 18 d is $\frac{1}{4}$. l) take $\frac{1}{4}$. of 6789 (as in the 22 queſtion) and multiply the ſame by 3 the numerator of the ſaid $\frac{3}{4}$. l. Or multiply 6789 by 3 (the numerator of the ſaid $\frac{3}{4}$. l) then take $\frac{1}{4}$. of that product, as in the 22 queſtion.

1 . . 18 . . 6789

56 . 11 . 6

facit l 509 . 3 . 6

1 . . 18 . . 6789

61101

facit l 509 . 3 . 6

1 . . 18 . . 6789

169 . 14 . 6

facit l 509 . 3 . 6

1 . . 18 . . 6789

20367

facit l 509 . 3 . 6

Que: 85. If 1 coſt 19 $\frac{1}{3}$ d, what coſt 6789: anſwer (becauſe 19 $\frac{1}{3}$ d is $\frac{13}{16}$. l) take $\frac{1}{16}$. of 6789 (as in the 18 queſtion) and multiply the ſame by 13 the numerator of the ſaid $\frac{13}{16}$. l. Or multiply 6789 by 13 (the numerator of the ſaid $\frac{13}{16}$. l) then take $\frac{1}{15}$. of that product, as in the 18 queſtion.

1 . . 19 $\frac{1}{3}$ . . 6789

42 . 8 . 7 $\frac{1}{3}$

facit l 551 . 12 . 1 $\frac{1}{3}$

1 . . 19 $\frac{1}{3}$ . . 6789

88257

facit l 551 . 12 . 1 $\frac{1}{3}$

Que: 68. If 1 coſt 1 ſh 10 d, what coſt 6789: anſwer (becauſe 22 d is $\frac{11}{12}$. l) take $\frac{1}{12}$. of 6789 (as in the 19 queſtion) and multiply the ſame by 11, the numerator of the ſaid $\frac{11}{12}$. l. Or multiply 6789 by 11 (the numerator of the ſayd $\frac{11}{12}$. l) then take $\frac{1}{12}$. of that product, as in 19 queſtion.

1 . . 1 . 10 . . 6789

56 . 11 . 6.

facit l 622 . 6 . 6

1 . . 1 . 10 . . 6789

74679

facit l 622 . 6 . 6

Que: 82. If 1 coſt 16d, what coſt 6789: anſwer (becauſe 16 d is $\frac{8}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 19 queſtion) and multiply the ſame by 8 the numerator of the ſaid $\frac{8}{120}$ l. Or multiply 6789 by 8 (the numerator of $\frac{8}{120}$ l) then take $\frac{1}{120}$ of that product. Or (becauſe 16 d is $\frac{4}{60}$ l) take $\frac{1}{60}$ of 6789 (as in the 21 queſtion) and multiply the ſame by 4 the numerator of the ſaid $\frac{4}{60}$ l. Or multiply 6789 by 4 (the numerator of the $\frac{4}{60}$ l) then take $\frac{1}{60}$ of that product, as in the 21 queſtion: or (becauſe 16 d is $\frac{2}{30}$ l) take $\frac{1}{30}$ of 6789 (as in the 23 queſtion) and multiply the ſame by 2 the numerator of the ſaid $\frac{2}{30}$ l. Or multiply 6789 by 2 (the numerator of the ſaid $\frac{2}{30}$, then take $\frac{1}{30}$ of that product, as in the 23 queſtion. Or (becauſe 16 d is $\frac{1}{15}$ l) take $\frac{1}{15}$ of 6789, as here you ſee in the example.

1 . . 16 . . 6789

56 . 11 . 6

facit l 452 . 12 . —

1 . . 16 . . 6789

54312

facit l 452 . 12 . —

1 . . 16 . . 6789

113 . 3 . —

facit l 452 . 12 . —

1 . . 16 . . 6789

27156

facit l 452 . 12 . —

1 . . 16 . . 6789

226 . 6 . —

facit l 452 . 12 . —

1 . . 16 . . 6789

13578

facit l 452 . 12 . —

1 . . 16 . . 6789

facit l 452 . 12 . —

Que: 83. If 1 coſt 16 $\frac{1}{2}$ d, what coſt 6789: anſwer, (becauſe 16 $\frac{1}{2}$ d, is $\frac{11}{160}$ l) take $\frac{1}{160}$ of 6789, and multiply the ſame by 11 the numerator of the ſaid $\frac{11}{160}$ l: Or multiply 6789 by 11 (the numerator of the ſaid $\frac{11}{160}$ l) then take $\frac{1}{160}$ of that product, as in the 18 queſtion.

1 . . 16 $\frac{1}{2}$ . . 6789

42 . 8 . 7 $\frac{1}{2}$

facit l 466 . 14 . 10 $\frac{1}{2}$

1 . . 16 $\frac{1}{2}$ . . 6789

74679

facit l 466 . 14 . 10 $\frac{1}{2}$

Que: 84. If 1 coſt 18 d, what coſt 6789: anſwer (becauſe 18 d is $\frac{9}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 19 queſtion) and mul-

multiply the ſame by 9 the numerator of the ſaid $\frac{9}{12}$. l. Or multiply 6789 by 9 (the numerator of the ſaid $\frac{9}{12}$. l) then take $\frac{1}{12}$. of that product, as in 19 queſtion. Or (becauſe 18 d is $\frac{3}{4}$. l) take $\frac{1}{4}$. of 6789 (as in the 22 queſtion) and multiply the ſame by 3 the numerator of the ſaid $\frac{3}{4}$. l. Or multiply 6789 by 3 (the numerator of the ſaid $\frac{3}{4}$. l) then take $\frac{1}{4}$. of that product, as in the 22 queſtion.

1 . . 18 . . 6789
56 . 11 . 6
facit l 509 . 3 . 6

1 . . 18 . . 6789
61101
facit l 509 . 3 . 6

1 . . 18 . . 6789
169 . 14 . 6
facit l 509 . 3 . 6

1 . . 18 . . 6789
20367
facit l 509 . 3 . 6

Que: 85. If 1 coſt 19 $\frac{1}{2}$ d, what coſt 6789: anſwer (becauſe 19 $\frac{1}{2}$ d is $\frac{13}{160}$. l) take $\frac{1}{160}$. of 6789 (as in the 18 queſtion) and multiply the ſame by 13 the numerator of the ſaid $\frac{13}{160}$. l. Or multiply 6789 by 13 (the numerator of the ſaid $\frac{13}{160}$. l) then take $\frac{1}{160}$. of that product, as in the 18 queſtion.

1 . . 19 $\frac{1}{2}$ . . 6789
42 . 8 . 7 $\frac{1}{2}$
facit l 551 . 12 . 1 $\frac{1}{2}$

1 . . 19 $\frac{1}{2}$ . . 6789
88257
facit l 551 . 12 . 1 $\frac{1}{2}$

Que: 68. If 1 coſt 1 ſh 10 d, what coſt 6789: anſwer (becauſe 22 d is $\frac{11}{120}$. l) take $\frac{1}{120}$. of 6789 (as in the 19 queſtion) and multiply the ſame by 11, the numerator of the ſaid $\frac{11}{120}$. l. Or multiply 6789 by 11 (the numerator of the ſayd $\frac{11}{120}$. l) then take $\frac{1}{120}$. of that product, as in 19 queſtion.

1 . . 1 . 10 . . 6789
56 . 11 . 6
facit l 622 . 6 . 6

1 . . 1 . 10 . . 6789
74679
facit l 622 . 6 . 6

Que: 87. If 1 coſt 22 ½ d, what coſt 6789: anſwer (becauſe 22 ½ d is $\frac{15}{160}$ l) take $\frac{1}{160}$ of 6789 (as in the 18 queſtion) and multiply the ſame by 15 (the numerator of the ſaid $\frac{15}{160}$ l): or multiply 6789 by 15 (the numerator of the ſaid $\frac{15}{160}$ l) then take $\frac{1}{160}$ of that product, as in the 18 queſtion.

1 . . 22 ½ . . 6789
42 . 8 . 7 ½
facit l 636 . 9 . 4 ½

1 . . 22 ½ . . 6789
101835
facit l 636 . 9 . 4 ½

Que: 88 If 1 coſt 2 ſh 2 d what coſt 6789: anſwer (becauſe 2 ſh 2 d is $\frac{11}{120}$ l) take $\frac{1}{120}$ of 6789 (as in the 19 queſtion) and multiply the ſame by 13 the numerator of the ſaid $\frac{13}{120}$ l. Or multiply 6789 by 13 (the numerator of the ſaid $\frac{13}{120}$ l) then take $\frac{1}{120}$ of that product, as in the 19 queſtion.

1 . . 2 . 2 . . 6789
56 . 11 . 6
facit l 735 . 9 . 6

1 . . 2 . 2 . . 6789
88257
facit l 735 . 9 . 6

Que: 89. If 1 coſt 2 ſh 3 d, what coſt 6789: anſwer. (becauſe 2 ſh 3 d is $\frac{9}{80}$ l) take $\frac{1}{80}$ of 6789 (as in the 20 queſtion) And multiply the ſame by 9 the numerator of the ſaid $\frac{9}{80}$ l. Or multiply 6789 by 9 (the numerator of the ſaid $\frac{9}{80}$ l) then take $\frac{1}{80}$ of that product, as in the twentith que-queſtion.

1 . . 2 . 3 . . 6789
84 . 17 . 3
facit l 763 . 15 . 3

1 . . 2 . 3 . . 6789
611101
facit l 763 . 15 . 3

Que: 90. If 1 coſt 2 ſh 4 d, what coſt 6789: anſwer, (becauſe 2 ſh 4 d is $\frac{7}{60}$ l) take $\frac{1}{60}$ of 6789 (as in the 21 queſtion.) And multiply the ſame by 7 the numerator of

1 . . 2 . 4 . . 6789
113 . 3 . —
facit l 792 . 1 . —

the

the ſaid $\frac{7}{40}$ l. Or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 21 queſtion.

l . . 2 . 4 . . 6789

47523

facit l 792 . 1 . —

Que: 91. If 1 coſt 2 ſh 9 d, what coſt 6789: anſwer, (becauſe 2 ſh 9 d is $\frac{11}{40}$ l) take $\frac{1}{40}$ of 6789 (as in the 20 queſtion) and multiply the ſame by 11 the numerator of the ſaid $\frac{11}{40}$ l. Or multiply 6789 by 11 (the numerator of the ſaid $\frac{11}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 20 queſtion.

l . . 2 . 9 . . 6789

84 . 17 . 3

facit l 933 . 9 . 9

l . . 2 . 9 . . 6789

74679

facit l 933 . 9 . 9

Que: 92. If 1 coſt 3 ſh 3 d, what coſt 6789: anſwer, (becauſe 3 ſh 3 d, is $\frac{13}{40}$ l) take $\frac{1}{40}$ of 6789 (as in the 20 queſtion) and multiply the ſame by 13 the numerator of the ſaid $\frac{13}{40}$ l. Or multiply 6789 by 13 (the numerator of the ſaid $\frac{13}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 20 queſtion.

l . . 3 . 3 . . 6789

84 . 17 . 3

facit l 1103 . 4 . 3

l . . 3 . 3 . . 6789

88257

facit l 1103 . 4 . 3

Que: 93. If 1 coſt 3 ſh 6 d, what coſt 6789: anſwer, (becauſe 3 ſh 6 d is $\frac{7}{40}$ l) take $\frac{1}{40}$ of 6789 (as in the 22 queſtion) and multiply the ſame by 7 the numerator of the ſaid $\frac{7}{40}$ l. Or multiply 6789 by 7 (the numerator of the ſaid $\frac{7}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 22 queſtion.

l . . 3 . 6 . . 6789

159 . 14 . 6

facit l 1188 . 1 . 6

l . . 3 . 6 . . 6789

47523

facit l 1188 . 1 . 6

*Que:*94. If 1 coſt 3 ſh 8 d, what coſt 6789: anſwer (becauſe 3 ſh 8 d is $\frac{11}{60}$ l) take $\frac{1}{60}$ of 6789 (as in the 21 queſtion) and multiply the ſame by 11 (the numerator of the ſaid $\frac{11}{60}$ l. Or multiply 6789 by 11 (the numerator of the ſaid $\frac{11}{60}$ l (then take $\frac{1}{60}$ of that product, as in the 22 queſtion.

1 . . 3 . 8 . . 6789

113 . 3 . —

facit l 1244 . 13 . —

1 . . 3 . 8 . . 6789

74679

facit l 1244 . 13 . —

Que: 95. If 1 coſt 4 ſh 4 d, what coſt 6789: anſwer, (becauſe 4 ſh 4 d is $\frac{13}{60}$ l) take $\frac{1}{60}$ of 6789 (as in the 21 queſtion) and multiply the ſame by 13 the numerator of the ſaid $\frac{13}{60}$ l. Or multiply 6789 by 13 (the numerator of the ſaid $\frac{13}{60}$ l) then take $\frac{1}{60}$ of that product, as in the 21 queſtiō.

1 . . 4 . 4 . . 6789

113 . 3 . —

facut l 1470 . 19 . —

1 . . 4 . 4 . . 6789

88257

facit l 1470 . 19 . —

Que: 96. If 1 coſt 4 ſh 6 d what coſt 6789: anſwer (becauſe 4 ſh 6 d, is $\frac{9}{40}$ l) take $\frac{1}{40}$ of 6789 (as in the 22 queſtion) and multiply the ſame by 9 the numerator of the ſaid $\frac{9}{40}$ l. Or multiply 6789 by 9 (the numerator of the ſaid $\frac{9}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 22 qneſtion.

1 . . 4 . 6 . . 6789

169 . 14 . 6

facit l 1527 . 10 . 6

1 . . 4 . 6 . . 6789

61101

facut l 1527 . 10 . 6

Que: 97. If 1 coſt 4 ſh 8 d, what coſt 6789: anſwer (becauſe 4 ſh 8 d is $\frac{7}{30}$ l) take $\frac{1}{30}$ of 6789 (as in the 23 queſtion) and multiply the ſame by 7 the numerator of the ſaid $\frac{7}{30}$ l. Or multiply 6789

1 . . 4 . 8 . . 6789

226 . 6 . —

facit l 1584 . 2 . —

by

by 7 (the numerator of the said $\frac{7}{20}$ l) then take $\frac{1}{20}$ of that product, as in the 23 question.

1 . . 4 . 8 . . 6789

47523

facit l 1584 . 2 . —

Que: 98. If 1 cost 5 sh 6 d, what cost 6789: answer (because 5 sh 6 d is $\frac{11}{40}$ l) take $\frac{1}{40}$ of 6789 (as in the 22 question) & multiply the same by 11 the numerator of the said $\frac{11}{40}$ l. Or multiply 6789 by 11 (the numerator of the said $\frac{11}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 22 question.

1 . . 5 . 6 . . 6789

169 . 14 . 6

facit l 1866 . 19 . 6

1 . . 5 . 6 . . 6789

74679

facit l 1866 . 19 . 6

Que: 99. If 1 cost 6 sh 6 d, what cost 6789: answer (because 6 sh 6 d is $\frac{13}{40}$ l) take $\frac{1}{40}$ of 6789 (as in the 22 question) and multiply the same by 13, the numerator of the said $\frac{13}{40}$ l. Or multiply 6789 by 13 (the numerator of the said $\frac{13}{40}$ l) then take $\frac{1}{40}$ of that product, as in the 22 questiõ.

1 . . 6 . 6 . . 6789

169 . 14 . 6

facit l 2206 . 8 . 6

1 . . 6 . 6 . . 6789

88257

facit l 2206 . 8 . 6

Que: 100. If 1 cost 7 sh 4 d, what cost 6789: answer (because 7 sh 4 d is $\frac{17}{20}$ l) take $\frac{1}{20}$ of 6789 (as in the 23 question) and multiply the same by 11 the numerator of the said $\frac{11}{20}$ l. Or multiply 6789 by 11 (the numerator of the said $\frac{11}{20}$ l) then take $\frac{1}{20}$ of that product, as in the 23 questiõ.

1 . . 7 . 4 . . 6789

226 . 6 . —

facit l 2489 . 6 . —

1 . . 7 . 4 . . 6789

74679

facit l 2489 . 6 . —

Que: 101. If 1 cost 8 sh 8 d, what cost 6789: answer (because 8 sh 8 d is $\frac{13}{20}$ l)

1 . . 8 . 8 . . 6789

226 . 6 . —

facit l 2941 . 18 . —

take $\frac{1}{20}$ of 6789 (as in the 23 queſtion) and multiply the ſame by 13 the numerator of the ſaid $\frac{13}{20}$ l: Or multiply 6789 by 13 (the numerator of the ſaid $\frac{13}{20}$ l) then take $\frac{1}{20}$ of that product, as in the 23 queſtion.

1 . . 8 . 8 . . 6789

88257

facit l 2941 . 18 . —

Que:102. If 1 coſt 19 ſh 4 d, what coſt 6789: anſwer (becauſe 19 ſh 4 d wanteth 8 d, that is $\frac{1}{30}$ l of 1 l) abate $\frac{1}{30}$ of 6789 from the ſame, as here you ſee in the example.

1 . . 19 . 4 . . 6789

226 . 6 . —

facit l 6562 . 14 . —

Que:103. If 1 coſt 19 ſh 6 d, what coſt 6789: anſwer, (becauſe 19 ſh 6 d wanteth 6 d, that is $\frac{1}{40}$ l of 1 l) abate $\frac{1}{40}$ of 6789 from the ſame, as here you ſee in the example.

1 . . 19 . 6 . . 6789

169 . 14 . 6

facit l 6619 . 5 . 6

Que: 104 If 1 coſt 19 ſh 8 d, what coſt 6789: anſwer (becauſe 19 ſh 8 d wanteth 4 d, that is $\frac{1}{60}$ l of 1 l) abate $\frac{1}{60}$ of 6789 from the ſame, as here you ſee in the example.

1 . . 19 . 8 . . 6789

113 . 3 . —

facit l 6675 . 17 . —

Que:105. If 1 coſt 19 ſh 9 d, what coſt 6789: anſwer (becauſe 19 ſh 9 d wanteth 3 d, that is $\frac{1}{80}$ l of 1 l) abate $\frac{1}{80}$ of 6789 from the ſame, as here you ſee in the example.

1 . . 19 . 9 . . 6789

84 . 17 . 3

facit l 6704 . 2 . 9

Que: 106. If 1 coſt 19 ſh 10 d, what coſt 6789: anſwer (becauſe 19 ſh 10 d wanteth 2 d, that is $\frac{1}{120}$ l of 1 l) abate $\frac{1}{120}$ of 6789 from the ſame, as here you ſee in the example.

1 . . 19 . 10 . . 6789

56 . 11 . 6

facit l 6732 . 8 . 6

Que:107. If 1 coſt 19 ſh 10 $\frac{1}{2}$ d, what coſt 6789: anſwer, (be-

cauſe

esuſe 19 ſh 10½ d wanteth 1 ½ d, that is 1/16. 1 of 1 l) abate 1/16. of 6789 from the ſame, as here you ſee in the example.

1 . . 19 . 10½ . . 6789
42 . 8 . 7½
facit 1 6746 . 11 . 4½

Que: 108. If 1 coſt 17 d, what coſt 240: anſwer, when 1 doth coſt 1 d, then 240 coſt 1 l, becauſe 240 d is 1 l. Then 240 at 17 d for each, is 17 l, as here you ſee in the example.

1 . . 17 . . 240
facit l 17 . — . —

Que: 109. If 1 coſt 7 d, what coſt 13: anſwer. When 1 doth coſt 7 d, then 12 coſt 7 ſh, becauſe 12 d is 1 ſh. Then 13 at 7 d, for each is 7 ſh 7 d, as here you ſee in the example.

1 . . 7 . . 13
facit 7 ſh 7 d

Que: 110. If 1 coſt 11 d, what coſt 120: anſwer, when 1 doth coſt 11 d, then 120 coſt 11 halfe pounds, that is 5½ l: becauſe 120 d is ½ l, as here you ſee in the example.

1 . . 11 . . 120
facit l 5 . 10 . —

Que: 111. If 1 coſt 19 d, what coſt 1000: anſwer, (becauſe 1000 is 4 1/6 times 240) multiply 19 by 4 ½, ſaying ½ of 19 is l 3 . 3 . 4. Then multiply 19 by 4, adding the aforeſaid l 3 . 3 . 4 vnto the product, as here you ſee in the example.

1 . . 19 . . 1000
3 . 3 . 4
facit l 79 . 3 . 4.

Que: 112. If 1 coſt 13 d, what coſt 816: anſwer, multiply 13 by 3 (for 720, which is 3 times 240) the product is 39 l, then take ½ of 13 (for 80 which is ⅓ of 240) is l 4 . 6 . 8: then conſider what part 16 (the remainer) is of 240 or 80, and it is 1/15. of 240. Or ⅓ of 80: therfore

1 . . 13 . . 816
720 . . 39 . — . —
80 . . 4 . 6 . 8
16 . . — . 17 . 4
facit l 44 . 4 . —

take $\frac{1}{11}$ of 13, which is $\frac{13}{11}$ l, that is 17 sh 4 d: or els $\frac{7}{7}$ of 4 l 6 sh 8 d (which 80 cost) is also 17 sh 4 d, which adde vnto l 39 . — . — and l 4 . 6 . 8 before found, as here you see in the example.

Que: 113. If 11 yardes cost 15 sh 10 d, what cost 27 yardes: answer, suppose that 1 yarde cost 15 sh 10 d. Then 3 yards (because 27 is 3 times 9) cost 3 times 15 sh 10 d (as in the 62 question) is l 2. 7 . 6, and 27 yardes cost 9 times asmuch as 3 yardes (as in the 63 question) is l 21 . 7 . 6 then (because 11 cost 15 sh 10 d which we suppose one to cost) take $\frac{1}{11}$ of that l 21 . 7 . 6 (as in the 45 question) is l 1 . 18 . 10 $\frac{4}{11}$, as here you see in the example. Or multiply 15 sh 10 d first by 9 (as in the 63 question) the product is l 7 . 2 . 6, then multiply that product by 3 (as in the 62 question) the product is l 21 . 7 . 6, then deuide that product by 11. That is take $\frac{1}{11}$ of it, as is beforesaid. This is the 114 question in my second booke.

11 . . 15 . 10 . . 27
2 . 7 . 6
21 . 7 . 6
facit l 1 . 18 . 10 $\frac{4}{11}$

11 . . 15 . 10 . . 27
7 . 2 . 6
21 . 7 . 6
facit l 1 . 18 . 10 $\frac{4}{11}$

Que: 114. If 18 L cost 22 sh, what cost 106 L: answer, suppose that 1 L cost 22 sh. Then 106 L cost (as in the 34 question) l 116 . 12 . — Then (because 18 L cost 22 sh which we suppose 1 L to cost) take $\frac{1}{18}$ of that 116 l 12 sh in this manner. First $\frac{1}{2}$ of 116 l 12 sh is l 58 . 6 . —. Then $\frac{1}{9}$ of that l 58 . 6 . — is l 6 . 9 . 6 $\frac{2}{3}$, for $\frac{1}{9}$ of $\frac{1}{2}$ is $\frac{1}{18}$. Or take $\frac{1}{9}$ of $\frac{1}{2}$ of the aforesaid 116 l 12 sh for that is also $\frac{1}{18}$, as here you see in the example. Or els consider if 18 L cost 22 sh, then 9 L cost 11 sh, then suppose that 1 L cost 11 sh: then 106 L cost (as in the

p 74

18 . . 22 . . 106
116 . 12 . —
58 . 6 . —
facit l 6 . 9 . 6 $\frac{2}{3}$

18 . . 22 . . 106
116 . 12 . —
19 . 8 . 8
facit l 6 . 9 . 6 $\frac{2}{3}$

57 que-

57 queſtion) 58 16 ſh, then (becauſe 9 L coſt 11 ſh, which we ſuppoſed 1 L to coſt) take $\frac{1}{9}$ of that 58 16 ſh, as in the 45 queſtion.

18 . . 22 . . 106
9 11 58 . 6 . —
facit 16 . 9 . $6\frac{1}{9}$

115. If 47 yardes coſt 18 . — . 9, what coſt 12 yardes, anſwer, multiply 18 . — . 9 by 12 (as in the 63 queſtion) the product is 961 9 ſh, which product deuide by 47 (for there is no other number that is a part of 47) in this manner. Firſt deuide 96 by 47 the quotient is 2 1 remaineth 21, placing the ſame 2 vnder 6 of the aforeſaid 96. Then reduce the ſaid 21 remaining into ſhillings, adding the 9 ſh of 196 . 9 . — is 49 ſh, ſtriking out the aforeſaid 21 remaining, and placing the 4 of the aforeſaid 49 ſh vnder the ſame 21 remaining. Thē deuide that 49 by 47, the quotient is 1 ſh, remaineth 2 ſh, placing the ſame 2 vnder 9 of the aforeſaid 49. Then reduce the ſaid 2 ſh remaining into pence is 24 d: which 24 (this 24 is plaſt in the quotient, becauſe it is leſſe then 47) deuided by 47, the quotient is $\frac{24}{47}$ d, as here you ſee in the example. This is the 115 queſtion in my ſecond booke. 115

47 . . 8 . — . 9 . . 12
facit 12 . 1 . $\frac{24}{47}$
96 . 9 . —
2 2
4

Que: 116. If $\frac{1}{4}$ L coſt $\frac{1}{5}$ l, what coſt $\frac{1}{12}$ L. Anſwer: multiply 6 (the denominator of the middle number in the order) by 32 (the denominator of the third number in the order) the product is 192, which 192 place vnder the firſt number in the order, to be multiplyed by 3 (the numerator of the firſt number in the order) but that multiplication is omitted to be made, becauſe (as in the 14 inſtruction of my firſt booke) the numerator of the third number in the order is alſo 3. Then multiply 4 (the denominator of the firſt

$\frac{1}{4}$ . . $\frac{1}{5}$ . . $\frac{1}{12}$
192 20
facit 2 ſh 1 d
4002
26
9

number in the order) by 5 (the numerator of the ſecond number in the order) the product is 20, omitting alſo to multiply that product by 3 (the numerator of the third number in the order) becauſe 192 aforeſaid is not multiplied by three aforeſaid. Then deuide the ſaid 20 by the aforeſaid 192, which cannot be. Therefore multiply the ſaid 20 by 20 (to reduce them into ſhillings) the product is 400, which product deuide by the aforeſaid 192, the quotient is 2 ſh, remaineth 16 ſh: placing the ſame 16 vnder 00 of the ſaid 400. Then reduce the ſaid 16 ſh remaining into pence, is 192 d. Then deuide that 192 by 192 aforeſaid, the quotient is 1 d. Placing all things as here you ſee in the example. The aforeſaid 400 may alſo be deuided by the aforeſaid 192, in this manner. Take $\frac{1}{12}$ of 192 is 16, and $\frac{1}{12}$ of 400 ſh, is 33 ſh 4 d. Then take $\frac{1}{16}$ of that 33 ſh 4 d is 2 ſh 1 d, as here you ſee in the example. Or to make the worke ſomething briefer. Multiply 6 (the denominator of the ſecond number in the order) by 8 ($\frac{1}{4}$ of 32 the denominator of the third number in the order, becauſe the ſame may be deuided by 4, the denominator of the firſt number in the order) the product is 48, which 48 place vnder the firſt number in the order) then multiply 5 (the numerator of the middle number in the order) by 1 ($\frac{1}{4}$ of 4 the denominator of the firſt number in the order, becauſe we haue taken $\frac{1}{4}$ of 32 as is beforeſaid) the product is 5, which 5 deuide by 48 aforeſaid, which cannot be: therefore multiply the ſaid 5 by 20 (to reduce them into ſhillings) the product is 100. Which product deuide by 48 aforeſaid: in this manner. Take $\frac{1}{8}$ of 48 is 6, and $\frac{1}{8}$ of 100 ſh, is 12 ſh 6 d: Then take $\frac{1}{6}$ of that 12 ſh 6 d, is 2 ſh 1 d, as here you ſee in the

$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{12}$
192	20	
16	400	
	33.4	
	facit 2 ſh 1 d	

$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{12}$
48	100	
6	12.6	
	facit 2 ſh 1 d	

the

the example. Or deuide the aforesaid 100 by 48 as in the former worke 400 is deuided by 192. As here you see in the example. Or to make the worke yet briefer. Say $\frac{1}{8}$ l is 16 sh 8 d. Then because $\frac{2}{12}$ is $\frac{1}{3}$ of $\frac{1}{4}$) take $\frac{1}{8}$ of that 16 sh 8 d, is 2 sh 1 d, as here you see in the example. This is the 117 question in my second booke.

$\frac{1}{4}$ . . $\frac{1}{2}$ . . $\frac{1}{12}$
48 200
facit 2 sh 1 d
48

$\frac{1}{4}$ . . $\frac{1}{2}$ . . $\frac{1}{12}$
16 . 8
facit 2 sh 1 d

117 = lib

Que: 117. If one crosse daller be worth 4 sh $2\frac{1}{2}$ d, what are 987 crosse dallers worth: answer, deuide 4 sh $2\frac{1}{2}$ d in such parts as are the part of 1 l: that is, suppose one to be worth 4 sh (as in the 26 and 41 questions) is l 197.8.— then suppose one to be worth 2 d (as in the 19 question) is l 8.4.6. then suppose one to be worth $\frac{1}{2}$ d, that is $\frac{1}{4}$ of 2 d, that is $\frac{1}{4}$ of that 2 d amounteth vnto (as in the 45 and 46 questions) is l 2.1.1 $\frac{1}{2}$, then adde all the said summes together: as here you see in the example. This is the 126 question in my second booke.

1..4. $2\frac{1}{2}$ . . 987
4 sh . . 197.8.—
2 d . . 8.4.6
$\frac{1}{2}$ d . . 2.1.1$\frac{1}{2}$
facit l 207.13.7$\frac{1}{2}$

126 lib 2

Que: 118. If 1 L of Nutmegs cost 7 sh 9 d, what cost 13 L 3 oz: of Nutmegs. Answer: place for 13 L 3 oz: (as in the 45 question) l 13.3.9, then (as in the 117 question) suppose 1 L to cost 5 sh (as in the 51 question) is l 3.5.11 $\frac{1}{4}$, then suppose 1 L to cost 2 sh 6 d (as in the 48 question) is l 1.12.11 $\frac{1}{2}$, then suppose 1 L to cost 3 d, that is, $\frac{1}{10}$ of 2 sh 6 d (as in the 117 question) is 3 sh 3 $\frac{4}{10}$ d, then adde all the said summes together, as here you see in the example. And for the auoiding of the abouesaid fractions, imagine 12 peeces of money called

1..7.9..13.3.9
5 sh . . 3.5.11$\frac{1}{4}$
2 sh 6 d .. 1.12.11$\frac{1}{2}$
3 d .. —.3.3$\frac{4}{10}$
facit l 5.2.2$\frac{7}{10}$

mites to be worth 1 d & 12 droits 1 mite, and 12 periots 1 droit, &c: Then the abouesaid worke is as here you see in the example, and is more conuenient in the vse of things then the former. This is the 127 question in my second booke.

1 . . 7 . 9 . . 13 . 3 . 9
5 sh . . 3 . 5 . 11 . 3
2 sh 6 d . . 1 . 12 . 11 . 7 . 6
3 d . . — . 3 . 3 . 6 . 9
facit 1 5 . 2 . 2 . 5 . 3

Que: 119. If 1 C cost 17 l 19 sh, what cost 3 qr 7 L. Answer, if 1 C cost l 17 . 19 . — Then 2 qr that is $\frac{1}{2}$ C cost l 8 . 19 . 6, then 1 qr cost $\frac{1}{2}$ of 2 qr is l 4 . 9 . 9, then 7 L cost $\frac{1}{4}$ of 1 qr is l 1 . 2 . 5 $\frac{1}{4}$, then adde all the said summes together, as here you see in the example. Or take $\frac{1}{16}$ of l 17 . 19 . — for 7 L, is l 1 . 2 . 5 $\frac{1}{4}$ which multiply by 13 (because 3 qr 7 L is $\frac{13}{16}$ C) is l 14 . 11 . 8 $\frac{1}{4}$, as here you see in the example. This is the 128 question in my second booke.

1 . . 17 . 19 . — . . 3 . 7
2 qr . . 8 . 19 . 6
1 qr . . 4 . 9 . 9
7 L . . 1 . 2 . 5 $\frac{1}{4}$
facit l 14 . 11 . 8 $\frac{1}{4}$

1 . . 17 . 19 . — . . 3 . 7
1 . 2 . 5 $\frac{1}{4}$
facit l 14 . 11 . 8 $\frac{1}{4}$

Que: 120. If 7 yardes cost 3 l 5 $\frac{1}{2}$ d, what cost 3 $\frac{1}{8}$ yardes, answer: Suppose 1 yarde to cost l 3 . — . 5 $\frac{1}{2}$, then 3 yardes cost l 9 . 1 . 4 $\frac{1}{2}$ and $\frac{1}{8}$ yardes cost $\frac{1}{8}$ of 3 yardes is l 1 . 2 . 8 $\frac{1}{16}$ which summes added together, is l 10 . 4 . $\frac{9}{16}$, then take $\frac{1}{7}$ of that aggregat, because 7 yardes cost but l 3 . — . 5 $\frac{1}{2}$ which we supposed one to cost, is l 1 . 9 . 1 $\frac{89}{112}$, as here you see in the examdle. This is the 129 question of my second booke.

7 . . 3 . — . 5 $\frac{1}{2}$ . . 3 $\frac{1}{8}$
3 yardes . . 9 . 1 . 4 $\frac{1}{2}$
$\frac{1}{8}$ yardes . . 1 . 2 . 8 $\frac{1}{16}$
10 . 4 . $\frac{9}{16}$
facit l 1 . 9 . 1 $\frac{89}{112}$

Que: 121. If 100 cost l 5 . 6 . 9, what cost 27: answer: suppose

pose one to cost l 5 . 6 . 9, then 3 (because 3 times 9 is 27) cost l 16 . — . 3 and 27 cost 9 times so much as 3, that is l 144 . 2 . 3 which deuide by 100 (because 100 cost l 5 . 6 . 9, which we supposed one to cost) cutting of the two last figures of 144 the quotiēt is 1 l, remaineth 44 l, which reduce by 20 into shillings, adding the 2 sh of l 144 . 2 . 3 is 882 sh which deuide in like manner by 100 the quotient is 8 sh remaineth 82 sh, which reduce by 12 into pence, adding the 3 d of l 144 . 2 . 3, is 987 d which deuide in like manner by 100 the quotient is 9 d, remaineth 87 that is $\frac{87}{100}$ d, as here you see in the example: this is the 140 question in my second booke.

100 . . 5 . 6 . 9 . . 27
16 . — . 3
fac: l 1 | 44 . 2 . 3
sh 8 | 82
d 9 | 87

140 lib

Que: 122. If 100 cost 11 d, what cost 9782: answer: suppose one to cost 8 d (as in the 23 question) is l 326 . 1 . 4, then suppose one to cost also in like manner 3 pence (as in the 20 question) is l 122 . 5 . 6 which summes added together is l 448 . 6 . 10, which aggregat deuide by 100, as in the 121 question, the quotient is l 4 . 9 . 8 $\frac{3}{100}$, as here you see in the example. This is the 141 question in my second booke.

100 . . 11 . . 9782
8 d . . 326 . 1 . 4
3 d . . 122 . 5 . 6
facit l 4 | 48 . 6 . 10
sh 9 | 66
d 8 | 02

141 lib

Que: 123. If 1 C cost 19 sh, what cost 13 C 2 qr 9 L. anſ: 13 C at 19 sh the hundreth (as in the 61 question) is l 12 . 7 . — then 2 qr at 19 sh the hundreth is 9 sh 6 d, then 8 L is $\frac{1}{7}$ of 2 qr. that is 1 sh 4 $\frac{2}{7}$ d, then 1 L is $\frac{1}{8}$ of 8 L, that is 2 $\frac{1}{28}$ d. then adde all the aforesaid summes together, as here you see in the example. This is the 152 question in my second booke.

1 . . 19 . . 13 . 2 . 9
19 sh . . 12 . 7 . —
2 qr . . — . 9 . 6
8 L . . — . 1 . 4 $\frac{2}{7}$
1 L . . — . — . 2 $\frac{1}{28}$
facit l 13 . 18 . $\frac{2}{28}$

152

Que: 124. If 100 cost l 7 . 6 . 8 $\frac{1}{4}$, what cost 13, anſwer, write (as in the 118 question) for $\frac{1}{4}$ d, mites 9. Then deuide 13 into those numbers, that are the part of 100. That is into 10, 2 and 1, the 10 cost $\frac{1}{10}$ of that 100 cost, is sh 14 . 8

100 . . 7 . 6 . 8 . 9 . . 13
10 . . — . 14 . 8 . — . 19 &c:
2 . . — . 2 . 11 . 2 . 6 &c:
1 . . — . 1 . 5 . 7 . 3 &c:
facit sh 19 . — . 10 . 7 &c:

p

—. 10 &c: then 2 coſt $\frac{1}{7}$ of that 10 coſt, is ſh 2 . 11 . 2 . 6 &c: then 1 coſt $\frac{1}{3}$ of that 2 coſt. is ſh 1 . 5 . 7 . 3 &c : then adde all the ſaid ſummes together (as in the 118 queſtion) is 19 ſh 10 mites 7 droits and ſomthing more, which is here omitted as a thing of little value. Or ſuppoſe that one coſt l 7 . 6 . 8 $\frac{1}{4}$ & then multiply the ſame by 13, the product is l 95 . 7 . 5 $\frac{1}{4}$, which deuide by 100 (as in the 121 queſtion) the quotient is 19 ſh $\frac{19}{4}$ d. as here you ſee in the example. This is the 167 queſtion in my ſecond booke.

100 . 7 . 6 . 8 $\frac{1}{4}$ .. 13	
	95 . 7 . 5 $\frac{1}{4}$
fa: ſh	19 | 07
d —	89 $\frac{1}{4}$ | 259
	100 | 400

Que: 125. If 1 oz: of golde coſt 57 ſh 9 d, what coſt 83 oz: 13 d. 20 gr: anſwer. Write 83 l 13 ſh 10 d (as in the 53 queſtion) for 83 ounces 13 penny weight 20 graines: then multiply the ſaid l 83 . 13 . 10 by 2, for 2 l, then take $\frac{1}{2}$ of it for 10 ſh, then take $\frac{1}{4}$ of it, or $\frac{1}{2}$ of the halfe of it for 5 ſh, then take $\frac{1}{3}$ of it, or $\frac{1}{2}$ of the fourth part of it, for 2 ſh 6 d, then take $\frac{1}{10}$ of that $\frac{1}{3}$ for 3 d, becauſe 3 d is $\frac{1}{10}$ of 2 ſh 6 d, then adde the ſaid ſummes together, as here you ſee in the example Or conſider that if 1 oz: coſt 57 ſh 9 d, then it wanteth 2 ſh 3 d of 3 l the ounce. Therefore take that 1 oz: coſt 3 l, is l 251 . 1 . 6 vnder which draw a line, then take 2 ſh, that is $\frac{1}{10}$ of l 83 . 13 . 10, is l 8 . 7 . 4 . 7 . 2 $\frac{4}{10}$. then take $\frac{1}{3}$ of the ſaid $\frac{1}{10}$. (becauſe 3 d is $\frac{1}{3}$ of 2 ſh) for 3 d, is l 1 . — . 11 . — . 10 $\frac{4}{10}$. then adde theſe two laſt ſummes together, abating their aggregat from the aforeſaid l 251 . 1 . 6, as here you ſee in the example. This is the 188 queſtion in my ſecond booke.

1 .. 57 . 9 .. 83 . 13 . 10	
2 l ..	167 . 7 . 8
10 ſh ..	41 . 16 . 11
5 ſh ..	20 . 18 . 5 . 6
2 ſh 6 d ..	10 . 9 . 2 . 9
3 d ..	1 . — . 11 . — . 10 &c:
facit l 241 . 13 . 2 . 3 . 10 &c:	

1 .. 57 . 9 .. 83 . 13 . 10	
3 l ..	251 . 1 . 6
2 ſh ..	8 . 7 . 4 . 7 . 2 . 4 $\frac{4}{10}$
3 d . —	1 . — . 11 . — . 10 $\frac{4}{10}$
facit l 241 . 13 . 2 . 3 . 10 . 9 $\frac{1}{10}$	

Que: 126. If a kerſey content 17 yards, be ſold for 6 ſh the yarde I gaine 10 percento, the queſtion is, how much the whole kerſey coſt

coſt. Anſwer though the worke of this queſtion be as is ſaid here before in the 11 queſtion. Yet I ſay that it is not needfull to finde the fourth number proportionall mentioned in the ſaid 11 queſtion: for it doth ſuffice in my briefe operations to haue the ſame in power. Therefore place the numbers giuen in their order, accepting the line mentioned in the ſaid 11 queſtion, for the fourth number proportionall vnto the three nnmbers aboue them written thus. Then marke, that for 110 on the one ſide, and 100 on the other ſide: you may take 11 and 10. Then conſider that ſhillings, muſt be deuided by 20 to be reduced into pounds, which deuiſion is made by omitting the aforeſaid 10, and deuiding 6 by 2, the quotient is 3. Then remaineth that 3 to be multiplied by 17, & that product to be deuided by the aforeſaid 11. The quotient is l 4. 12. $8\frac{8}{11}$ as here you ſee in the example. This is the 401 queſtion in my ſecond booke.

1 . . 6	. . 17
110 . . 100	. . —
	51

facit l 4. 12. $8\frac{8}{11}$

Que: 127. If 1 L of Cinnamon coſt 4 ſh ready money, for how much muſt it be ſold for 6 moneths to gaine 12 percēto paranno without reckening gaine vpon gaine. Anſwer, place the numbers giuen in their order, thus. Then 12 on the one ſide, doth ballance 12 on the other ſide. Then $\frac{1}{2}$ of 100 on the one ſide is 25: and $\frac{1}{4}$ of 4 on the otherſide is 1. Then remaineth 6 to be multiplied by the ſaid 1, the product is 6, and thar 6 to be deuided by the ſaid 25, the quotient is $\frac{6}{25}$. And laſtly that $\frac{6}{25}$ ſh to be added vnto 4 ſh, as here you ſee in the example. This is the 402 queſtion in my ſecond booke.

12 . . 12	. . 6
100 . . —	. . 4

facit $4\frac{6}{25}$ ſh

Que: 128. If 1 yarde of veluet coſt 20 ſh ready money, for how long time muſt it be ſold at 19 ſh to looſe 15 percento paranno, without reckening loſſe vpon loſſe. Anſwer: Place the numbers giuen in their order, thus, as here you ſee them placed in the example on the next page following on the other ſide the leafe, then conſidering diligently the numbers ſo placed and giuen, we finde, that $\frac{1}{5}$ of 15 is 3, and becauſe 5 times twentie on the

one ſide, doth balance 100 on the other ſide. Then remaineth 12, to be deuided by the ſaid 3. The quotient is 4, as here you ſee in the example. This is the 411 queſtion in my ſecond booke.

20
19
20 . . 1 . . 100
15 . . 12 . . ——
facit for 4 moneths.

Que: 129. A marchant at Midelborow doth take vp money by exchange for London at 35 ſh 6 d flz: and for the ſame he doth buy Spaniſh money of 8 roials of plate, the peece, for 7 ſh 6 d flz: the peece, which money he doth ſend to London to pay the exchange, and at London he doth ſell the ſame for 4 ſh 3 d ſter: the peece. The queſtion is, how much he doth win or looſe per C. anſwer: Place the nūbers giuen in their order thus, then 20 and $7\frac{1}{2}$ are deuiders, and all the other deuidents, becauſe the line which expreſſeth the fourth number proportionall vnto the three numbers aboue the ſaid line written: is written or plaſt firſt in the order, in the ſecond rowe of numbers. Then 100 is 5 times 20, but the $\frac{1}{5}$ of $7\frac{1}{2}$, the other deuider is $1\frac{1}{2}$ whoſe 2 times is 3. for deuider. Then the 2 times alſo of $35\frac{1}{2}$ is 71, which multiplied by $4\frac{1}{4}$ the other deuident the product is $301\frac{1}{4}$, to be deuided by the aforeſaid 3, the quotient is $\frac{7}{12}$ more then 100, as here you ſee in the example.

$35\frac{1}{2}$ . . 20 . . $7\frac{1}{2}$
—— . . $4\frac{1}{4}$ . . 100
3 71
$301\frac{1}{4}$
facit $\frac{7}{12}$ he gaines per C.

Que: 130. If the exchange from Venice to London be at 64 d ſter: and from London to Noremberge at 46 d ſter: at what price doth it make the exchange from Venice to Noremberge. Anſwer: Place the numbers giuen in their order thus, then $\frac{1}{10}$ of 60 is 6 and $\frac{1}{10}$ of 100 is 10. Then $\frac{1}{4}$ of 46 times 6 is 3 times 23, that is 69 the deuider: and $\frac{1}{4}$ of 64 is 16 to be multiplied by 65 multiplied by the aforeſaid 10, the product is 10400 the deuident, then the quotient is $150\frac{50}{69}$ flo. as here you ſee in the example. This is the 516 queſtion in my ſecond booke.

1 . . 64 . . 100
46 . . 65 . . ——
60 . . 1 . . ——
69 . . 10400
facit at $150\frac{50}{69}$ flo: at 60 kr: the flo: 355 the 100 duckets currenti.

Que: 131. If a cloth content 30 yardes coſt at London 11 l ſter: and the charges to ſend it to Liſbone is 18 ſh ſter: and 5 yardes at London are 4 varras at Liſbone, and the exchange is at 72 d ſter: the que-

queſtion is, in how much the varra doth come to ſtand at Lisbone when the diſma muſt be paid at Lisbone. anſwer: Place the numbers giuen in their order thus. Then 11 pound 18 ſh is 238 ſh: Then $\frac{1}{3}$ of 6 times 4 times 27: is 12 times 27, that is 324 the deuider alſo $\frac{1}{3}$ of 5 times 238, is 595 the deuident, then the quotient is 1 $\frac{271}{324}$ duckets, as here you ſee in the example, This is the 526 queſtion in my ſecond booke.

27 . . 11 . 18 . . 1
238
4 . . 5 . . —
6 . . 1 . . —
324 595
facit in 1 $\frac{271}{324}$ duckets.

526

Que: 132. Note that the facit of the 527 queſtion in my ſecond booke is miſtaken, and is there. Facit, it is beſt to ſell it for 10 ſh, at 4 moneths, but it muſt be: facit, it is beſt to ſell it for the veluet in barter.

Que: 133. A marchant at Midleborow doth buy linnen cloth at 29 d flz: the elle flz: and for the paiment thereof he doth take vp money by exchange for London at 35 ſh 6 d flz: and for the paiment of the exchange at London, he doth ſend the ſaid linnen cloth to London, where he doth ſell it for 2 ſh 6 d ſtr: the elle and 3 elles at London be 5 elles at Midleborow. The queſtion is whether he doth win or looſe, & how much per C. anſwer. Place the numbers giuen in their order thus. Then 29. 5 and 20 be deuiders. Then 5 times 20 is 100. Then remaineth 3 times 30 times 35 $\frac{1}{2}$, which is 3195, to be deuided by 29 the quotiēt is 10 $\frac{5}{29}$ more then 100, as here you ſee in the exāple.

3 . . 29 . . 5
30 . . — . . 20
— . . 35 . 6 . . 100
29 3195
110
2

Que: 134. A marchant at London doth deliuer money by exchange for Spaine at 70 d ſtr: for 375 marauidiz. & frō Spaine he doth deliuer it for Antwarp at 350 maruadiz for 6 ſh flz: and from Antwarpe he doth deliuer it for London at 23 ſh 6 d flz: and then doth finde to looſe 10 percento peranno the queſtion is how much time he hath loſt, without reckening loſſe vpon loſſe: anſwer. Place the numbers giuen in their order thus. Then the 2 times of 23 ſh 6 d, is 47 ſh, and the $\frac{1}{3}$ of $\frac{1}{10}$ of 70 times 350 is 49, whoſe 47 times is 2303 the deuider. Then the 2 times of 20 is 40, whoſe $\frac{1}{3}$ is 8 times 375 is 3000, whoſe 72 times is

facit he gaines 10 $\frac{1}{23}$ per C.

216000 the deuident, then the quotient is $6\frac{482}{2303}$ lesse then 100, then say if 10 be lost in 12 monthes, in how long time is the said $6\frac{482}{2303}$ lost which is accomplished, adding $1\frac{557}{2303}$ the $\frac{1}{5}$ of $6\frac{482}{2303}$ vnto the same for 12 is the $\frac{1}{5}$ of 10 more, then 10 as here you see it done in the example. This is the 541 question in my second booke, and is there mistaken, both in the propounding of the question, and in the operation of the same, as in the same place is to be seene, when it is conferred with this. And for your more instruction, we will also place the numbers giuen in their order thus. Then the operation doth differ nothing from the aforegoing, and the cause of the worke is apparent by the numbers placed in this order, as here you see them placed in the example. Lastly, we will place the numbers in their order thus. Compounding the whole in one worke, wherein is to be obserued (because 12 is 10, and $\frac{1}{5}$ of 10) that the quotient $112\frac{1264}{2303}$ is to be substracted from 100 and $\frac{1}{5}$ of 100, that is from 120, as here you see it done in the example.

Que: 135. A marchant at London doth deliuer mony by exchange for Hambourgh at 9 marke 2 shil: Lubish, and from

```
3.75 . . 70   . . 350
  20 . . 23.6. . ——
——— . . 72   . . 100
———————————————————
  47        3000
  49        ————
———————————————————
2303        216731
              882
              1
  10 . . 12 . . 6 482/2303
                1 557/2303
———————————————————
```

facit $7\frac{1039}{2303}$ moneths.

```
  70 . . 375 . . 100
 350 . .  72 . . ——
  23.6 . .  20 . . ——
———————————————————
 329      93
2303      ————
          216000
            8731
            182
10 . . 12 . . 6 482/2303
              1 557/2303
```

facit $7\frac{1039}{2303}$ moneths.

```
  70 . . 375 . . 100
 350 . .  72 . . ——
  23 .6 . . 20 . . ——
  10 . . 12 . . ——
———————————————————
 329      112
2303      ————
          259200
            28974
            586
            12
```

facit $7\frac{1039}{2303}$ moneths.

thence

thence he doth deliuer it for Antwarpe at 7 marke 13 ſh Lubiſh, for one pound flz: and from Antwarpe he doth deliuer it for Venice at 72 d flz: and from Venice he doth deliuer it for Rome, at 91 Duckets de camera the hundred Duckets currenti, and from Rome he doth deliuer it for London at 72 d ſterl: the queſtion is how much he doth winne or looſe percento peranno, when he doth looſe 8 moneths without reckening gaine vpon gaine, or loſſe vpon loſſe. Anſwer. Place the numbers giuen in their order thus. Then 72, 100 and 240, on the one ſide doth ballance 240, 72 and 100 on the other ſide. Thē remaineth 146 times 91, that is 13286 to be deuided by 125 the quotient is $6\frac{36}{125}$ more then 100. Then ſay, if 8 moneths gaine $6\frac{36}{125}$ what gaineth 12 moneths, as here you ſee in the example. This is the 542 queſtion in my ſecond booke.

7	13	240	9	2	
125			146		
72		1			
100		91			
1		72			
240			100		
8	106	12			

13286

73

542
542

facit he doth gaine $9\frac{14}{125}$ percento peranno.

Que: 136. A marchant at Midelborrow doth buie linnen cloth at 27 d flz: the elle, and doth ſend the ſame to London, where he doth ſell it for 2 ſh 2 d ſterl: the elle, & then doth returne the money by exchange for Midelborrow at 35 ſh 9 d flz: the queſtion is how much he doth winne or looſe percento peranno, when he doth receiue his money againe at Midelborow at foure moneths end, and that 5 elles at Midelborrow are 3 elles at London, without reckening gaine vpon gaine, or loſſe vpon loſſe. Anſ: Place the numbers giuen in their order thus. Then 27, 5, 20 and 4 are deuiders. Then 5 and 20 doth ballance 100, then $\frac{1}{27}$ of 27 is 1 which is balanſt by taking $\frac{1}{5}$

3	27	5		
26		20		
	36.9.	100		
4		12		

$12\frac{1}{4}$

$318\frac{1}{2}$

facit he doth gaine $18\frac{1}{2}$ percento peranno.

of 3 is 1, $\frac{1}{3}$ of 36 sh 9 d is 12 $\frac{1}{4}$ sh and $\frac{1}{7}$ of 12 is 4. which 4 is also balanst by 4. Then remaineth 26 times 12 $\frac{1}{4}$ that is 318 $\frac{1}{2}$ to be deuided by 1. The quotient is 318 $\frac{1}{2}$, from which abate 300 because 12 moneths is 3 times 4 moneths, as here you see in the example.

Qu. 137. A marchant doth bring with him into England Spanish money of 8 roials of plate the peece, of which 14 peeces do way at London 12 $\frac{1}{4}$ oz. and are worth to be sold at London 4 sh 10 d lb: the ounce, and the said marchant is to go for Midleborow, where each peece of the said Spanish mony is worth 7 sh 6 d sterl: the question is whether it be more profit, to carry ouer the said peeces of money vnto Midleborow, or to sell them at London, and to deliuer his money by exchange for Midleborow, at 37 sh sterl: and by how much percento. Answer: Place the numbers giuen in their order thus. Then 7 $\frac{1}{2}$. 14, and 20 are deuiders. Then 20 is $\frac{1}{7}$ of 100: therefore $\frac{1}{7}$ of 7 $\frac{1}{2}$ is 1 $\frac{1}{2}$ times 14 is 21 deuider. Then 12 $\frac{1}{4}$ is $\frac{49}{4}$ whose $\frac{1}{7}$ is $\frac{7}{4}$ and $\frac{1}{3}$ of 21 is 3 deuider. Then $\frac{7}{4}$ aforesaid multiplied by 4 $\frac{1}{8}$ that is $\frac{33}{8}$ is $\frac{231}{32}$ whose 24 times is 203 times 37 is 7511 deuident. And also the 24 times of 3 is 72 deuider. Then the quotient is 4 $\frac{23}{72}$ more then 100. as here you see in the example: and in the same maner, and many other wayes, you may worke all such other like questions. Therefore hauing made sufficient declaration, aswell of some my briefe operations, which heretofore to my knowledge haue not bene brought to light or practised by any other whosoeuer, as also of many other things and workings dispersed in diuerse seuerall places of my first and second bookes of Arithmetick. I do now leaue thee to the studdie examination, and wittie consideration both of them and the rest.

1	. .	7 $\frac{1}{2}$	. .	14	
1	. .	4 $\frac{1}{2}$	. .	12 $\frac{1}{4}$	
—	. .	—	. .	20	
—	. .	37	. .	100	

21 203
3 104
72 7511
323

facit, it is more profit to sell them at London by 4 $\frac{23}{72}$ *perc.*

FINIS.

Mafterson

A